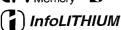
# DSR-PD100/PD100P

**SERVICE MANUAL** 



DVCAM







MEMORY STICK

C MECHANISM



US Model Canadian Model DSR-PD100

AEP Model DSR-PD100P

Photo: DSR-PD100

NTSC model: DSR-PD100 PAL model: DSR-PD100P

### Digital Camcorder

### System

Video recording system Two rotary heads, Helical scanning

Audio recording system Rotary heads, PCM system Quantization: Fs 32kHz (12bits, stereo 1, stereo 2), Fs 48kHz (16bits,

Video signal DSR-PD100: NTSC color, EIA standards DSR-PD100P: PAL color, CCIR standards

Usable cassette Mini DVCAM cassette with logo printed
Tape speed

DSR-PD100: Approx. 28.218 mm/s DSR-PD100P: Approx. 28.246 mm/s Recording/playback time 40 minutes (PDVM-40ME) Fast forward/rewind time Approx. 2 min. 30 s (PDVM-40ME) Image device

3CCD (Charge Coupled Device 1/4")

Viewfinder Electric viewfinder (color)

Combined power zoom lens, 48x (Digital), 12x (Optical)

#### Focal distance

 $f = 4.3 \text{ to } 51.6 \text{ mm} (^3/_{16} \text{ to } 2^{1}/_{8} \text{ in.})$ (41.3 to 496 mm (1  $^{11}/_{16}$  to 19  $^{5}/_{8}$  in.) when converted into a 35 mm still camera)

F 1.6 - 2.8

TTL autofocus system inner focus wide macro system

Color temperature

Auto, ♣One push, ♣Indoor (3200K), ☀Outdoor (5800K) Minimum illumination 4 lux at F 1.6 Illumination range

4 to 100,000 lux Recommended illumination More than 100 lux

#### LCD screen

**Picture** 

3.5 inches measured diagonally  $72.4 \times 50.4 \text{ mm} (2^{7}/8 \times 2 \text{ in.})$ On-screen display TN LCD/TFT active matrix method Total dot number 184,580 (839 x 220)

#### Input and output connectors

S VIDEO input/output Input/output auto switch 4-pin mini DIN Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.286 Vp-p (DSR-PD100), 0.3 Vp-p (DSR-PD100P), 75 ohms, unbalanced

### **SPECIFICATIONS**

Audio/Video input/output Input/output auto switch AV MINI JACK, 1 Vp-p, 75 ohms, unbalanced, sync negative 327 mV, (at output impedance more than 47 kilohms) Output impedance with less than 2.2 kilohms/Stereo minijack (ø 3.5mm) Input impedance more than 47 kilohms DV input/output

4-pin special connector Headphones Stereo minijack (ø 3.5 mm) MIC input Stereo minijack (ø 3.5mm):0.388mV,

DC2.5V Input impedance 6.8 kilohms **C**LANC jack

Stereo miniminijack (ø 2.5 mm)

#### General

Power requirements 7.2 V (battery insertion input) 8.4 V (DC IN jack) Average power consumption 4.3 W during camera recording using viewfinder
5.3 W during camera recording using LCD screen Operating temperature 0°C to 40°C (32°F to 104°F) Storage temperature -20°C to 60°C (-4°F to 140°F) **Dimensions** Approx.  $93 \times 112 \times 193.5 \text{ mm (w/h/d)}$  (3  $^{3}/_{4} \times 4^{1}/_{2} \times 7^{5}/_{8} \text{ in.)}$ 

Approx. 900 g (1 lb 16 oz) excluding the battery pack and the cassette. Approx. 985 g (2 lb 3 oz) including the XLR adaptor Approx. 1.28 kg (2 lb 13 oz) including the XLR adaptor, wide conversion lens and wide conversion lens hood.

Microphone Electret condenser microphone, Stereo type Speaker

Dynamic-speaker
Supplied accessories See page 2.

### AC power adaptor

Power requirements 100 to 240 V AC, 50/60 Hz Power consumption **Output voltage** DC OUT: 8.4 V, 1.5 A in operating mode Operating temperature 0°C to 40°C (32°F to 104°F) Storage temperature

-20°C to 60°C (-4°F to 140°F) Dimensions (Approx.)  $125 \times 39 \times 62 \text{ mm} (w/h/d) (5 \times 19/16 \times 10)$  $2^{1/2}$  in.) Mass (Approx.)

280 g (9.8 oz) excluding power code

Continued on next page







### PC card adaptor

Host interface PC card ATA/True IDE standards Operating voltage 3.3 V/5V Operating environment 0°C to 60°C (32°F to 140°F) (noncondensing) Dimensions (Approx.) 85 x 54 x 5 mm (w/h/d) (3 3/8 x 2 1/4 x 7/32 in.) Mass (Approx.) 30 g (1 oz)

### Memory stick

Memory type Flash memory Voltage 2.7 to 3.6 V Power consumption About 4.5 mA About 130 mA at stndby Clock Maximum 20 MHz Operating environment 0°C to 60°C (32°F to 140°F) (noncondensing) Dimensions (Approx.)  $21.5 \times 50 \times 2.8 \text{ mm} (\text{w/h/d}) (^{7}/\text{s} \times 2 \times$ 1/8 in.) Mass (Approx.) 4 g (0.2 oz)

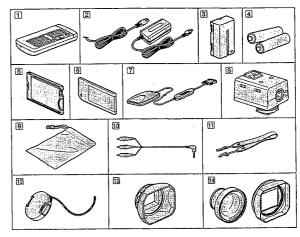
Design and specifications are subject to change without notice.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

### • SUPPLIED ACCESSORIES

Check that the following accessories are supplied with your camcorder.



- 1 Wireless Remote Commander (1)
- (2) AC-L10A AC power adaptor (1), Power cord (mains lead) (1) The shape of the plug varies from region to region.
- 3 NP-F330 battery pack (1)
- 4 Size AA (R6) battery for Remote Commander (2)
- 5 PC card adaptor (1), PC card adaptor case (1)
- 6 Memory stick (1), memory stick case (1), label (1)
- PC card/parallel port adaptor (1), Power cord (1), Adaptor connector (1), CD-ROM (1)

- 8 XLR adaptor (1)
- Pouch for XLR adaptor (1)
   When not using the XLR adaptor, put the adaptor into the pouch.
- 10 A/V connecting cable (1)
- 11 Shoulder strap (1)
- 12 Lens cap (1)
- 13 Lens hood (1)
- 14 Wide conversion lens (1), wide conversion lens hood (1)

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

### SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

- Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
- Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
- Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
- 4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
- 5. Check the B+ voltage to see it is at the values specified.
- 6. Flexible Circuit Board Repairing
  - Keep the temperature of the soldering iron around 270°C during repairing.
  - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
  - Be careful not to apply force on the conductor when soldering or unsoldering.

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### **SERVICE NOTE**

### 1. POWER SUPPLY DURING REPAIRS

In this unit, about 10 seconds after power is supplied (8.4V) to the battery terminal using the service power cord (J-6082-223-A), the power is shut off so that the unit cannot operate.

This following two methods are available to prevent this. Take note of which to use during repairs.

#### Method 1.

Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the remote commander switch to the "ADJ" side.

#### Method 2.

Press the battery switch of the battery terminal using adhesive tape, etc.

#### Method 3.

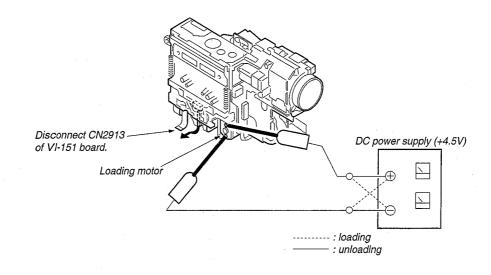
Use the AC power adaptor.

# 2. HOW TO TAKE A CASSETTE OUT WHEN THE MAIN POWER CANNOT BE TURNED ON

Note: To take a cassette out forcibly as follows when the main power cannot be turned on, remove the cassette lid, cabinet (L) and cabinet (R). Apply +4.5 V power from an external power supply to the loading motor, as shown below. Refer to sections 2-1 and 2-2 for the procedure to remove the cabinet (L) assembly.

### Procedure:

- 1) Disconnect the CN2913 of VI-151 board.
- 2) Apply +4.5 V directly to the loading motor as shown to drive the loading motor that ejects a cassette.



### **SELF-DIAGNOSIS FUNCTION**

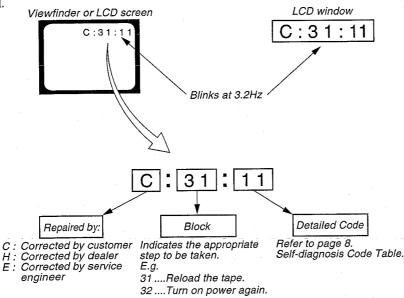
### 1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, LCD screen or LCD window what to do. This function consists of two display; self-diagnosis display and service mode display.

Details of the self-diagnosis functions are provided in the Instruction manual.

### 2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder, LCD screen or LCD window consists of an alphabet and 4-digit numbers, which blinks at 3.2 Hz. This 5-character display indicates the "repaired by:", "block" in which the problem occurred, and "detailed code" of the problem.

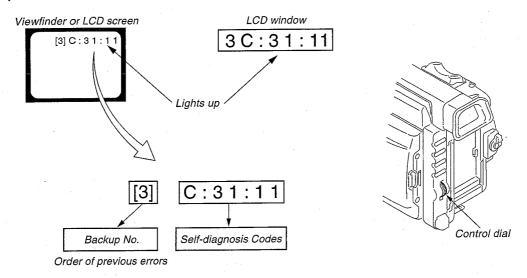


### 3. SERVICE MODE DISPLAY

The service mode display shows up to six self-diagnosis codes shown in the past.

### 3-1. Display Method

While pressing the "STOP" key, set the switch from OFF to "VTR or PLAYER", and continue pressing the "STOP" key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.



### 3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

- [1]: Occurred first time
- [4]: Occurred fourth time
- [2]: Occurred second time
- [5]: Occurred fifth time
- [3]: Occurred third time
- [6]: Occurred the last time

### 3-3. End of Display

Turning OFF the power supply will end the service mode display.

Note: The "self-diagnosis display" data will be backed up by the coin-type lithium battery of CK-80 board BT7200. When this coin-type lithium battery is removed, the "self-diagnosis display" data will be lost by initialization.

# 4. SELF-DIAGNOSIS CODE TABLE

Se	Self-diagnosis Code		de			
Repaired by:	Block Detailed Function Code		iled	Symptom/State	Correction	
С	2	1	0	0	Condensation.	Remove the cassette, and insert it again after one hour.
С	2	2	0	0	Video head is dirty.	Clean with the optional cleaning cassette.
C	2	3	0	0	Non-standard battery is used.	Use the info LITHIUM battery.
С	3	1	1	0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
С	3	1	1	1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
С	3	1	2	0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3	1	2 ·	1	Winding S reel fault when counting the rest of tape.	Load the tape again, and perform operations from the beginning.
C	3	1	2	2	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3	1	2	3	S reel fault.	Load the tape again, and perform operations from the beginning.
C	3	1	2	4	T reel fault.	Load the tape again, and perform operations from the beginning.
С	3	1	3	0	FG fault when starting capstan.	Load the tape again, and perform operations from the beginning.
.C.	. 3	1	4	0	FG fault when starting drum.	Load the tape again, and perform operations from the beginning.
C	3	1	4	2	FG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
С	3	1	1	0	LOAD direction loading motor time- out.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	1	1	1	UNLOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	2	0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	2	1	Winding S reel fault when counting the rest of tape.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3	2	2	2	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	2	3	S reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	2	4	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	3	0	FG fault when starting capstan.	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	4	0	FG fault when starting drum	Remove the battery or power cable, connect, and perform operations from the beginning.
С	3	2	4	2	FG fault during normal drum operations	Remove the battery or power cable, connect, and perform operations from the beginning.
Е	6	1	0	0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus reset sensor (Pin ® of CN500 of VC-208 board) when focusing is performed when the control dial is rotated in the focus manual mode, and the focus motor drive circuit (IC500 of VC-208 board) when the focusing is not performed.
Е	6	1	1	0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom reset sensor (Pin ② of CN500 of VC-208 board) when zooming is performed when the zoom lens is operated and the zoom motor drive circuit (IC500 of VC-208 board) when zooming is not performed.
Е	6	2	0	0	Steadyshot function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect pitch angular velocity sensor (SE451 of SE-75 board) peripheral circuits.
Е	6	2	0	1	Steadyshot function does not work well. (With yaw angular velocity sensor output stopped.)	Inspect yaw angular velocity sensor (SE450 of SE-75 board) peripheral circuits.

### **SECTION 1 GENERAL**

begin

### **DSR-PD100/PD100P**

This section is extracted from instruction manual.

### Before you begin Using this manual

The instructions in this manual are for the two models listed below. Before you start reading this manual and operating the unit, check your model number by looking at the bottom of your camcorder. The DSR-PD100 is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, "DSR-PD100 only."

As you read through this manual, buttons and settings on the camcorder are shown in capital letters.
e.g., Set the POWER switch to CAMERA.

#### Types of differences

Model number	Color system	Drop frame system
DSR-PD100	NTSC	Drop frame or non-drop frame
DSR-PD100P	PAL	_

### (Note on Cassette Memory

This camcorder is based on the DVCAM format. You can only use mini DVCAM cassettes with this camcorder. We recommend you to use a tape with cassette memory (III.

The functions which depend on whether the tape has the cassette memory or not are:

• End Search (p. 22, 25)
• Date Search (p. 73)
• Photo Search (p. 76).
The functions you can operate only with the cassette memory are:
• Title Search (p. 76)
• Superimposing a title (p. 63)
• Making a custom title (p. 65)
• Labeling a cassette (p. 68).
For details, see page 116.

For details, see page 116.

### Note on TV color systems

TV color systems differ from country to country.

To view your recordings on a TV, you need an NTSC system-based TV (DSR-PD100).

To view your recordings on a TV, you need a PAL system-based TV (DSR-PD100P).

### Precaution on copyright

Television programs, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the camcorder, video tape, etc.

### Precautions on camcorder care

- The LCD screen and/or the color viewfinder are manufactured using high-precision technology. However, there may be some tiny black points and/or bright points (red, blue or green in color) that constantly appear on the LCD screen and/or in the viewfinder. These points are normal in the manufacturing process and do not affect the recorded picture in any way. Over 99.99% are operational for effective use.

  Do not let the camcorder get wet. Keep the camcorder away from rain and sea water. Letting the camcorder get wet may cause the unit to malfunction, and sometimes this malfunction cannot be repaired [a].

  Never leave the camcorder exposed to tenperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight [b].



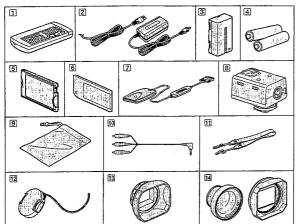


6

5

### Checking supplied accessories

Check that the following accessories are supplied with your camcorder.



8 XLR adaptor (1) (p. 61)

9 Pouch for XLR adaptor (1)

11 Shoulder strap (1) (p. 141)

12 Lens cap (1) (p. 13)

13 Lens hood (1) (p. 15)

When not using the XLR adaptor, put the adaptor into the pouch. (1) A/V connecting cable (1) (p. 70, 80)

[14] Wide conversion lens (1), wide conversion lens hood (1) (p. 62)

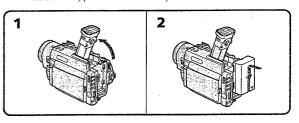
- 1 Wireless Remote Commander (1) (p. 140)
- [2] AC-L10A AC power adaptor (1), Power cord (mains lead) (1) (p. 9, 27) The shape of the plug varies from region to
- 3 NP-F330 battery pack (1) (p. 8)
- [4] Size AA (R6) battery for Remote Commander (2) (p. 140)
- 5 PC card adaptor (1), PC card adaptor case (1)
- 6 Memory stick (1), memory stick case (1), label (1) (p. 90)
- PC card/parallel port adaptor (1), Power cord (1), Adaptor connector (1), CD-ROM (1) (p. 91)

### Getting started Installing and charging the battery pack

Before using your camcorder, you first need to install and charge the battery pack. To charge the battery pack, use the supplied AC power adaptor. This camcorder operates only with the "InfoITHIUM" battery pack. "InfoITHIUM" is a trademark of Sony Corporation.

### Installing the battery pack

- (1) Lift up the viewfinder.
- (7) List up the "winded."
  (2) Insert the battery pack in the direction of the ▼ mark on the battery pack. Slide the battery pack down until it is locked.
  Attach the battery pack to the camcorder securely.



Note on installing the NP-F730/F730H/F750/F930/F950 battery pack Use the camcorder while stretching out the viewfinder

Note on the battery pack
Do not carry the camcorder by grasping the battery pack.

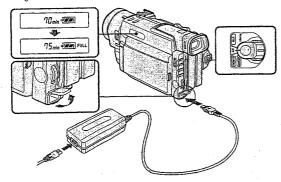
## Charging the battery pack

Charge the battery pack on a flat surface without vibration. The battery pack is charged a little in the factory.

(1) Open the DC IN jack cover and connect the supplied AC power adaptor to the DC

Open the DC IN Jack cover and connect the supplied AC power adaptor to the DC IN Jack with the plug's ▲ mark up.
 Connect the power cord to the AC power adaptor.
 Connect the power cord to a wall outlet.
 Set the POWER switch to OFF. Remaining battery time is indicated by the minutes on the display window. Charging begins.
 When the remaining battery indicator becomes , normal charge is completed. For full charge, which allows you to use the battery longer than usual, leave the battery pack attached for about 1 hour after normal charge is completed until FULL appears in the display window.

Before using the camcorder with the battery pack, unplug the AC power adaptor from the DC IN Jack of the camcorder. You can also use the battery pack before it is completely charged.



- Notes

   "--- min" appears on the display window until the camcorder calculates remaining
- --- min appears of the display window roughly indicates the recording time with the viewfinder. Jee it as a guide. It may differ from the actual recording time.

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### Installing and charging the battery pack

- Notes on remaining battery time indication during recording

  Remaining battery time is displayed on the LCD screen or in the viewfinder. However, the
  indication may not be displayed properly, depending on using conditions and
  circumstances.

  When you close the LCD panel or open it, it takes about 1 minute for the correct remaining
  time to be displayed.

To remove the battery pack Lift up the viewfinder. While pressing I BATT RELEASE, slide the battery pack in the direction of the arrow.



#### Installing and charging the battery pack

#### Charging time

Battery pack	Charging time *	
NP-F330 (supplied)	150 (90)	
NP-F530	210 (150)	
NP-F550	210 (150)	
NP-F730	300 (240)	
NP-F750/NP-F730H**	300 (240)	
NP-F930	390 (330)	
NP-F950	390 (330)	

- The time required for a normal charge is indicated in parentheses.

  Approximate minutes to charge an empty battery pack using the supplied AC power adaptor. (Lower temperatures require a longer charging time.)

  NP-F730H is sold only in the U.S.A.

### Battery life

While using with viewfinder

Battery pack	Continuous recording time *	Typical recording time **
NP-F330 (supplied)	70 (65)	40 (35)
NP-F530	115 (105)	55 (50)
NP-F550	145 (130)	70 (65)
NP-F730	260 (235)	135 (125)
NP-F750/NP-F730H***	300 (265)	160 (140)
NP-F930	405 (360)	210 (185)
NP-F950	465 (420)	235 (220)

#### While using with LCD

Battery pack	Continuous recording time *	Typical recording time **	Playing time with LCD
NP-F330 (supplied)	60 (50)	30 (25)	70 (65)
NP-F530	90 (80)	50 (45)	115 (105)
NP-F550	115 (100)	60 (50)	145 (130)
NP-F730	200(180)	110 (100)	260 (235)
NP-F750/NP-F730H***	240 (210)	135 (125)	300 (265)
NP-F930	310 (280)	170 (155)	405 (360)
NP-F950	360 (320)	200 (180)	465 (420)

Numbers in parentheses indicate the time when you use a normally charged battery.

Battery life will be shorter if you use the camcorder in a cold environment.

Approximate continuous recording time indoors.

Approximate uninutes when recording while you repeat recording start/stop, zooming and turning the power on/off. The actual battery life may be shorter.

NP-F730H is sold only in the U.S.A.

### Inserting a cassette

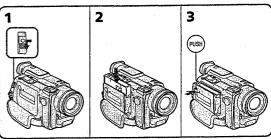
- You can use mini DVCAM cassette with [DVCAM]. logo\*.

  Make sure that the power source is installed.

  (1) While pressing the small blue button on the EJECT switch, slide it in the direction of the arrow. The cassette compartment automatically opens.

  (2) Insert a cassette with the window facing out.

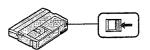
  (3) Close the cassette compartment by pressing the "PUSH" mark on the cassette
- - compartment.
- \* [DVCAM] is a trademark.



To eject the cassette While pressing the small blue button on the EJECT switch, slide it in the direction of the  $\,$ 

To prevent accidental erasure

Slide and open the lab on the cassette to expose the red mark. If you try to record with the red mark toposed, the 80a and \$\preceq\$ indicates flash on the LCD screen or in the viewfinder, and you cannot record on the tape. To re-record on this tape, slide and close the tab to cover the red mark.



q

### Basic operations

#### Camera recording

Make sure that the power source is installed and a cassette is inserted. Before you record one-time events, you had better make a trial recording to make sure that the camcorder is working correctly.

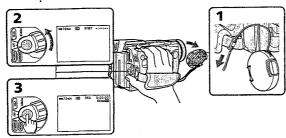
When you use the camcorder for the first time, power on it and reset the date and time to your time before you start recording (p. 118).

(1) Remove the lens cap by pressing both knobs on its sides and pull the lens cap string to fix it.

(2) While pressing the small cross hours.

- (2) While pressing the small green button on the POWER switch, set it to CAMERA. The camcorder is set to Standby mode.

(3) Press START/STOP. The camcorder starts recording. "REC" appears on the LCD screen or in the viewfinder. The camera recording lamp on the front of the camcorder also lights up.



To stop recording momentarily [a] Press START/STOP. The "STBY" indicator appears on the LCD screen or in the viewfinder (Standby mode).

To finish recording [b]
Set the POWER switch to OFF. Then, eject the cassette and remove the battery pack.



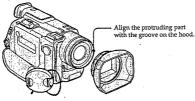




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### Attaching the lens hood

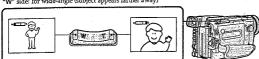
When the supplied wide conversion lens is not attached to the camcorder, we recommend you to attach the lens hood to record fine pictures, no matter where you shoot. You can also attach the lens cap when using the lens hood.



If an optional lens or filter is attached
When an optional lens or filter is attached to the camcorder, you cannot attach the lens hood.
Detach the optional lens or filter before attaching the lens hood.

### Using the zoom feature

Zooming is a recording technique that lets you change the size of the subject in the scene. For more professional-looking recordings, use the zoom function sparingly. "T" side: for telephoto (subject appears closer) "W" side: for wide-angle (subject appears farther away)



Zooming speed (Variable speed zooming)
Press the power zoom lever a little for a relatively slow zo

zoom; press it still more for a high-

When you shoot a subject using a telephoto zoom

If you cannot get a sharp focus while in extreme telephoto zoom, press the "W" side of the
power zoom lever until the focus is sharp. You can shoot a subject that is at least about
about 80 cm (25 /8 feet) way from the lens surface in the telephoto position, or about
1 cm (about 1/2 inch) away in the wide-angle position.

#### To focus the viewfinder lens

If you cannot see the indicators in the viewfinder clearly, or after someone else has used the camcorder, focus the viewfinder lens. Move the viewfinder lens adjustment lever so that the indicators in the viewfinder come into sharp focus.



Note on Standby mode

If you leave the camcorder in Standby mode for 5 minutes while the cassette is inserted, the camcorder turns off automatically. This prevents wearing down the battery and wearing out the tape. To resume Standby mode, while pressing the small green button on the FOWER switch, set it to OFF once, and then to CAMERA. To start recording, press START/STOP.

Note on the progressive made

Note on the progressive mode If you modify the images on your personal computer or play the images back as still pictures, we recommend you to set PROG. SCAN to ON in the menu system before shooting. The picture qualify may improve in this mode, but if you shoot a moving subject, the image may shake when it is played back.

When you set the lock knob to the left position, the POWER switch will not be set to MEMORY accidentally.



Notes on the time code

- The time code indicates the recording or playback time, "0:00:00" (hours: minutes: seconds) in CAMERA mode and "0:00:00:00" (hours: minutes: seconds: frames) in VTR
- Blows.

  Be sure not to make a blank portion when recording, because the time code will start from "0.000.00" again.

  You can select the drop frame or non-drop frame system using the menu. (DSR-PD100
- only)  $^{\circ}$  You can reset the time code to  $^{\circ}$ 0:00:00 $^{\circ}$  in the CAMERA mode or to  $^{\circ}$ 0:00:00:00 $^{\circ}$  in the VTR mode. Press the TC RESET button in the Recording or Recording pause mode.

Note on the tape recorded in the DV format

If you record in the DVCAM format on the tape that has been recorded in the DV format, the playback picture and sound may be distorted between the two formats.

Note on the been sound

Note that the beep sound is not record sound, select OFF in the menu system. nd is not recorded on the tape. If you do not want to hear the beep

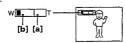
Note on remaining tape indicator
The indicator may not be displayed accurately depending on the tape. Though the indicator
does not appear at the time of recording, it will appear in a few seconds.

- Zooming of more than 12x digital zoom

   If you set the D ZOOM function to ON in the menu system, you can perform zooming of more than 12x performed digitally. It is set to OFF at the factory.

   You cannot use the digital zoom when you set PROG. SCAN to ON in the menu system.

   The right side [al of the power zoom indicator shows the digital zooming zone, and the left side [b] shows the optical zooming zone. If you set the D ZOOM function to ON, the [a] zone appears

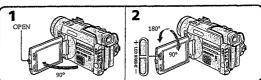


## Shooting with the LCD screen

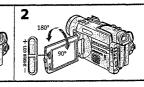
You can also record the picture while looking at the LCD screen.
When using the LCD screen, the viewfinder turns off automatically except in mirror mode.
You cannot monitor the sound from the speaker during recording.
(1) While pressing OPEN, open the LCD panel.
(2) Adjust angle of the LCD panel.
The LCD panel moves about 90 degrees to this side and about 180 degrees to the

other side.

To adjust the brightness of the LCD screen, press LCD BRIGHT + or -.
The battery life is longer when the LCD panel is closed. Use the viewfinder instead of the LCD screen to save the battery power.



Backlighting the LCD screen
If the LCD screen is insufficiently illuminated even after adjusting LCD BRIGHT, select LCD
B. L. in the ment system and set to BRIGHT. You can select LCD B. L. only while using the
battery pack as a power source.



#### Camera recording

- rise, the camcorder body may

- Notes on the LCD panel

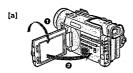
   When closing the LCD panel, turn it vertically until it clicks [a].

   When turning the LCD panel, turn it always vertically; otherwise, the camcorder body m be damaged or the LCD panel may not close properly [b].

   Close the LCD panel completely when not in use.

   Do not push nor touch the LCD panel while operating the camcorder.

   You may find it difficult to view the LCD screen due to glare when using the camcorder outdoors.

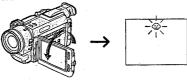




### Letting the subject monitor the shot

You can turn the LCD panel over so that it faces the other way and you can let the subject monitor the shot while shooting with the viewfinder.

Turn the LCD panel up vertically. When you turn the LCD panel 180 degrees, the a indicator appears on the LCD screen (mirror mode) and the time code and remaining tape indicators disappear. You can also use the Remote Commander.



To cancel mirror mode
Turn the LCD panel down toward the camcorder body.

#### Camera recording

- Notes on mirror mode

  \*When you turn the LCD panel about 135 degrees to 180 degrees, the camcorder enters mirror mode.

  \*Using the mirror mode, you can record yourself while watching yourself on the LCD
- Osing the further induce, you can look like a mirror-image while recording in mirror mode.
   The picture on the LCD screen looks like a mirror-image while recording in mirror mode.
   The STBY indicator appears as II● and REC as ●. Other indicators appear as mirror-image. Some indicators may not appear in mirror mode.
   While recording in mirror mode, you cannot operate the following functions: MENU, TITLE.



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### Camera recording

# Self-timer recording

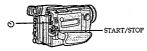
You can make a recording with the self-timer. This mode is useful when you want to record

yourself.

(1) Press © (self-timer) to display © (self-timer) on the LCD screen or in the viewfinder while the camcorder is in Standby mode.

(2) Press START/STOP.

Self-timer starts counting down to 10 with a beep sound. In the last two seconds of the countdown, the beep sound gets faster, then recording starts automatically at the time ways set. the time you set.



To stop self-timer recording Press START/STOP. Use the Remote Commander for convenience.

# To record still pictures using the self-timer Press PHOTO in step 2.

To cancel self-timer recording Press  $\mathfrak O$  so that the  $\mathfrak O$  indicator disappears from the LCD or viewfinder screen while the camcorder is in Standby mode.

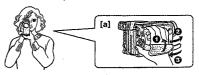
# Self-timer recording mode is canceled when • Self-timer recording is finished. • The POWER switch is set to OFF or VTR.

Note The display may become darker right after pressing the  $\odot$  button. This is not a malfunction.

### Hints for better shooting

For hand-held shots, you will get better results by holding the camcorder according to the following suggestions:

• Hold the camcorder firmly and secure it with the grip strap so that you can easily manipulate the controls with your thumb. [a]



- Place your elbows against your side.
  Place your left hand under the camcorder to support it.
  Place your eye against the viewfinder eyecup.
  Be sure not to touch the build-in microphone.
  Use the LCD panel frame or the viewfinder frame as a guide to determine the horizontal
- Use the LCD patter finance of the American

   You can also record in a low position to get an interesting angle. Lift the viewfinder up for record from a low position. [b]

   You can also record in a low position or even in a high position using the LCD panel. [c]

   When you use the LCD screen outdoors in direct sunlight, the LCD screen may be difficult to see. If this happens, we recommend that you use the viewfinder.







#### Hints for better shooting

Place the camcorder on a flat surface or use a tripod

Try placing the camorder on a hable top or any other flat surface of suitable height. If you have a tripod for a still camera, you can also use it with the camorder. When attaching a non-Sony tripod, make sure that the length of the tripod secure is less than 6.5 mm (9/32 inch). Otherwise, you cannot attach the tripod securely and the screw may damage the

#### Cautions on the LCD panel and on the viewfinder

Do not pick up the camcorder by the viewfinder or the LCD panel. [d]

Do not place the camcorder so as to point the viewfinder or the LCD panel toward the sun. The inside of the viewfinder or the LCD panel may be damaged. Be careful when placing the camcorder under sunlight or by a window. [e]





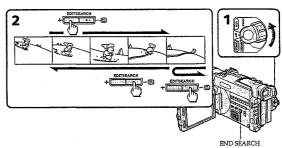
Checking the recorded picture

Using the EDITSEARCH, you can review the last recorded scene or check the recorded

Using the EDISPARCH, you can review the last recorded science of check the recorded

(1) While pressing the small green button on the POWER switch, set it to CAMERA.

(2) Press the -⊕ side of EDITSEARCH momentarily; the last few seconds of the
recorded portion plays back (Rec Review). Hold down the - side of EDITSEARCH
until the camcorder goes back to the scene you want. The last recorded portion is
played back. To go forward, hold down the + side (Edit Search).



To stop playback Release EDITSEARCH.

To go back to the last recorded point (END SEARCH)
Press RND SEARCH. The last recorded point is played back for about 5 seconds and stops.
Note that when you use a tape without cassette memory, this function does not work once
you eject the cassette after recording.

To begin re-recording

Press START/STOP. Re-recording begins from the point you released EDITSEARCH.
Provided you do not eject the tape, the transition between the last scene you recorded and the next scene you record will be smooth.

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### Playing back a tape

You can monitor the playback picture on the LCD screen or in the viewfinder.

You can monitor the playback picture on the LCD screen or in the viewfinder.

(1) Insert the recorded lape with the window facing out.

(2) While pressing OPEN, open the LCD panel.

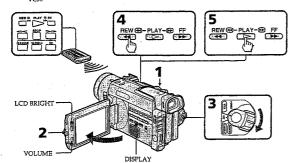
(3) While pressing the small green button on the POWER switch, set it to VTR.

(4) Press ∠ to rewind the tape.

(5) Press ∠ to start playback.

Adjust the volume using VOLUME +/- and the brightness of the LCD screen using LCD BRIGHT +/
You can also monitor the picture on a TV screen, after connecting the camcorder to a TV or VCD.

You o



To stop playback, press □.

To rewind the tape, press ◄◄.

To fast-forward the tape rapidly, press ▶▶.

Using the Remote Commander

as an control playback using the supplied Remote Commander. Before using the Remote mander, insert the size AA (R6) batteries.

To display the LCD screen/viewfinder screen indicators Press DISPLAY. To erase the indicators, press again.

Notes on screen indicators

• The screen indicator disappears when the title is displayed.

• When you play back a tape using a "InfoLITHIUM" battery, @ indicates the remaining battery capacity. The remaining battery time in minutes is not displayed.

Using headphones

Connect headphones (not supplied) to the  $\Omega$  jack. You can adjust the volume of the headphones using VOLUME +/-.

Playing back a tape

To view the playback picture in the viewfinder Close the LCD panel. The viewfinder turns on automatically. When using the viewfinder, you can monitor the sound only by using headphone To view on the LCD screen again, open the LCD panel. The viewfinder turns off automatically.

Note on DV-formatted tapes
You can play back DV-formatted tapes on this camcorder if the tape is recorded in SP mode.
'SP' appears on the LCD screen or in the viewfinder during playback.
You cannot play back DV-formatted tapes recorded in LP mode.

Various playback modes

To view a still picture (playback pause)
Press II during playback. To resume playback, press II or

To locate a scene (picture search)
Keep pressing ≪ or ▶► during playback. To resume normal playback, release the button.

To monitor the high-speed picture while advancing the tape or

rewinding (skip scan)
Keep pressing ◄◄ while rewinding or ▶▶ while advancing the tape. To resume normal
rewinding or fast-forward, release the button.

To view the picture at 1/3 speed (slow playback)

Press I► on the Remote Commander during playback. For slow playback in reverse direction, press <, then press I►. To resume normal playback, press I►.

To view the picture at double speed
For double speed playback in the reverse direction, press <, then press <2 on the Remote
Commander during playback. For double speed playback in the forward direction, press >>,
then press ×2 during playback. To resume normal playback, press >>.

To view the picture frame-by-frame
Press ≪II or III → on the Remote Commander in playback pause mode. If you keep pressing
the button, you can view the picture at 1,70 speed (DSR-PD100) or at 1/25 speed (DSRPD100P). To resume normal playback, press ▷.

To change the playback direction Press < on the Remote Commander for reverse direction or > on the Remote Commander for forward direction during playback. To resume normal playback, press >.

Notes on playback

Notes on playback.

The sound is muted in the various playback modes.

During playback other than normal playback, the previous recording may appear in mosaic image. This is not malfunction.

When playback pause mode lasts for 5 minutes, the camcorder automatically enters stop mode. To resume playback, press ⊳.

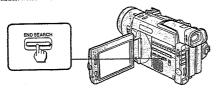
Note on slow playback
The slow playback can be performed smoothly on this camcorder; however, this function does not work for an output signal from the LDV IN/OUT jack.

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### Searching for the end of the picture

You can go to the end of the recorded portion after you record and play back the tape. The tape starts rewinding or fast-forwarding and the last about 5 seconds of the recorded portion plays back. Then the tape stops at the end of the recorded picture (End Search).

Open the LCD panel and press END SEARCH during recording standby This function works when the POWER switch is set to CAMERA or VTR.



- Notes on End Search

   When you use a tape without cassette memory, the End Search function does not work
  once you eject the cassette after recording.

   When you use a tape with cassette memory, the End Search function works once you eject
  the cassette. When you play back a tape which has a blank portion in the beginning or
  between the recorded portions, the End Search function will not work correctly.

#### Advanced operations

### Using alternative power sources

You can choose any of the following power sources for your camcorder: battery pack, and house current (mains). Choose the appropriate power source depending on where you want to use your camcorder.

Place	Power source	Accessory to be used
Indoors	House current (Mains)	Supplied AC power adaptor
Outdoors	Battery pack	Battery pack NP-F330 (supplied), NP-F530, NP-F550, NP- F730, NP-F730H+, NP-F750, NP-F930, NP-F950

\* NP-F730H is sold only in the U.S.A.

#### Note on power sources

Disconnecting the power source or removing the battery pack during recording or playback may damage the inserted tape. If this happens, restore the power supply again immediately.

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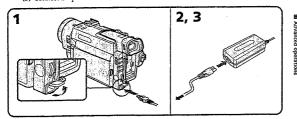
# Using the house current (mains)

- To use the supplied AC power adaptor:

  (1) Open the DC IN jack cover, and connect the AC power adaptor to the DC IN jack on the camcorder.

  (2) Connect the power cord (mains lead) to the AC power adaptor.

  (3) Connect the power cord (mains lead) to a wall outlet (mains).



#### WARNING

The power cord (mains lead) must be changed only at a qualified service shop.

#### PRECAUTION

The set is not disconnected from the AC power source (house current/mains) as long as it is connected to the power cord (mains lead), even if the set itself has been turned off.

Keep the AC power adaptor away from the camcorder if the picture is disturbed.

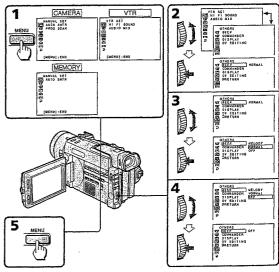
### Changing the mode settings

You can change some of the mode settings programed at the factory to further enjoy the features and functions of the camcorder. Just turn the control dial to select the menu items displayed on the LCD screen. You can make selections in the following order: the menu display — isons — items — mode settings.

(1) Press MENU to display the menu.

(2) Turn the control dial to select the desired icon on the left side of the menu, then

(2) Turn the control dial to select the desired item, then press the dial.
(3) Turn the control dial to select the desired item, then press the dial.
(4) Turn the control dial to select the desired mode, then press the dial. If you want to change the other modes, repeat steps 3 and 4. If you want to change the other modes, repeat steps 3 and 4. If you want to change the other items, select ⇒ RETURN and press the dial, then repeat steps 2 to 4.
(5) Press MENU to erase the menu display.



hanging the mode settings as differ depending on the setting of the POWER switch to VTR, CAMERA or

MEMORY.

While recording in mirror mode, you cannot operate the menu system.

#### Items for the MMANUAL SET menu

- AUTO SHTR <ON/OFF>
   Select ON and the electronic shutter functions automatically when shooting in bright conditions.

  • Select OFF and the electronic shutter does not function even in bright conditions.

#### PROG. SCAN\* <OFF/ON>

- Select OF not to record still/moving pictures with all the pixels.
   Select ON to record still/moving pictures with all the pixels.

### Items for the @ CAMERA SET menu

D 200M <0FF/ON>
Select OFF not to use the digital zoom. The camcorder goes back to 12x optical zoom
Select ON to activate digital zooming.

16:9WIDE <OFF/ON> Select this item to record a 16:9 wide picture. See page 39 for details.

STEADYSHOT <ON/OFF>

Normally select ON.
 Select OFF when you do not have to worry about camera-shake.

Adjust the setting level of AE (Automatic Exposure). See page 52 for details.

#### GAIN SHIFT <0dB/-3dB

- Set the gain value to 0dB.
  Set the gain value to -3dB.

### FRAME REC <OFF/ON>

- Normally select OFF.

  Select ON for cut recording.
  When you remove the power source, the setting becomes OFF.

- INT.REC <ON/OFF/SET> <WAIT TIME/REC TIME>

   Normally select OFF. Select ON to make an interval recording.

   Select WAIT TIME to set or change the waiting time for interval recording.

   Select REC TIME to set or change the recording time for interval recording.

  When you remove the power source, the setting becomes OFF, but the waiting time and recording time are retained.

### Items for the 🖾 VTR SET menu

- HEMS TOF THE 48 OF A SET HEME HIR SOUND'S -STEREO/1/2> Select 1 to play back stereo sound or main and sub sound (for dual sound). Select 1 to play back the left sound (for stereo sound) or main sound (for dual sound). Select 2 to play back the right sound (for stereo sound) or sub sound (for dual sound).

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### Changing the mode settings

#### PHOTO SAVE

Select this item to duplicate still pictures. See page 98 for details

- Items for the @ CM SET menu CM SEARCH < ON/OFF> Select ON to search using cassette memory. Select OFF to search without using cassette memory.

Erase the title you have superimposed.

- TITLE DSPL <ON/OFF>
   Select ON to display the title you have superimposed.
   Select OFF not to display the title.

TAPE TITLE
Select this item to label the cassette tape.

ERASE ALL Select this item to erase all the data in cassette memory.

### Items for the 🖾 TAPE SET menu

- AUDIO MODE <F532K/F548K>
   Normally select F532K to record two stereo sounds.
   Select F548K to record the one stereo sound with high quality.

## MIC LEVEL\* <AUTO/MANUAL>

- Select AUTO to adjust the recording level automatically
   Select MANUAL to adjust the recording level manually

### MREMAIN <AUTO/ON>

- Select ON to always display the remaining time of the tape in the following cases:

  With the power on or a tape inside, for eight seconds after the remaining time of the tape becomes certain.

  For eight seconds after the ▷ or DISPLAY button is pressed.

  During rewinding, fast-forwarding, and searching the picture.

   Select ON to always display the remaining time of the tape.

- DATA CODE <DATE/CAM or DATE>

   Select DATE/CAM to display date and recording data during playback.

   Select DATE to display date during playback.

- TIME CODE <DF/NDF> (DSR-PD100 only)

   Select DF to record in the drop frame system.

   Select NDF to record in the non-drop frame system.

### Items for the 📾 SETUP menu

Select this item to reset the date or time

#### LTR SIZE <NORMAL/2X>

Normally select NORMAL.
 Select 2X to display the selected menu item by twice size of the normal.

Select this item to adjust the balance between the stereo 1 and stereo 2 by turning the control dial.

NTSC PB <ON PAL TV/NTSC 4.43> (DSR-PD100P only)

Normally select ON PAL TV.

Select NTSC 4.43 when playing back a tape recorded in the NTSC color system. When you play back on a Multi System TV, select the best mode while watching the picture on the TV.

#### Items for the 🖾 LCD/VF SET menu

#### LCD B.L. <BRT NORMAL/BRIGHT>

 Normally select BRT NORMAL.
 Select BRIGHT when the LCD screen is dark. The battery consumption increases by 10 to Even if you adjust the LCD B.L., the recorded picture is not affected.

LCD COLOR (LCD COLOUR) Select this item and change the level of the indicator by turning the control dial up (+) or down (-) to adjust the color intensity of the picture.

VF BRIGHT

Close the LCD panel. Close the LLD panel. Select this item to adjust the brightness of the viewfinder. The viewfinder becomes brighter when you turn it down ( $\rightarrow$ ).

#### Items for the 🖾 MEMORY SET menu

CONTINUOUS <OFF/ON/MULTI SCRN>
•Select OFF not to record continuously.
•Select No to record 1 to 4 pictures continuously.
•Select MULTI SCRN to record nine pictures continuously.

- QUALITY <STANDARD/FINE/SUPER FINE>
   Select STANDARD to record still pictures in the standard image quality mode, using the
- memory card slot.

   Select FINE to record still pictures in the fine image quality mode, using the memory card
- slot.

  Select SUPER FINE to record still pictures in the superfine image quality mode, using the

- PROTECT <OFF/ON>
   Normally select OFF not to protect still pictures.
   Select ON to protect selected still pictures against accidental erasure. See page 106 for details.

SLIDE SHOW
Select this item to play back images in a continuous loop. See page 112 for details.

DELETE ALL
Select this item to delete all the images. See page 108 for details.

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Select this item to format memory sticks or PC cards. See page 94 for details.

# Changing the mode settings

#### Items for the FR OTHERS menu

WORLD TIME
Select this item to set the clock by a time difference. See page 119 for details.

#### REEP - MELODY/NORMAL/OFF>

- BEET \* MRELUTY/NUMMAL/OFF>
  Normally select MELODY so that a melody sounds when you start/stop recording, etc.
   Select NORMAL so that beeps sound when you start/stop recording, etc.
   Select OFF when you do not want to hear the beep sound.
- COMMANDER\* < ON/OFF>

## Solect ON when using the supplied Remote Commander for the camcorder. Select OFF when not using the Remote Commander.

DISPLAY < LCD or V-OUT/LCD >

Normally select LCD.
 Select V-OUT/LCD to display indicators both on the LCD screen and TV screen.

#### REC LAMP < ON/OFF>

- Normally select ON.

  Select OFF when you do not want the camera recording lamp on the front of the unit to light up.

- COLOR BAR (COLOUR BAR) <OFF/ON>
   Normally select OFF not to display the color bar.
   Select ON to display the color bar.

### DV EDITING

Select this item when editing a tape on another equipment connected with the i.LINK cable (DV connecting cable). See page 82 for details.

\* These settings return to the default 5 minutes or more after the power source is disconnected or battery is removed. As far as the other items without an asterisk are concerned, their settings are retained even when the power source is disconnected or battery is removed, as long as the vanadium-lithium battery is charged.

When recording a close subject
When REC LAMP is set to ON, the red camera recording lamp on the front of the camcorder
may reflect on the subject if its close. In this case, we recommend you set REC LAMP to may OFF.

- When playing back a tape recorded in the FS48K (16-bit) mode, you cannot adjust the balance in AUDIO MIX.
- balance in AUDIO MIX.

  If you select FS48K in AUDIO MODE, you cannot add an audio sound.

  If you select FS48K in AUDIO MODE, you cannot add an audio sound.

  If you select BRIGHT in LCD B.L., the battery life while recording decreases 10 to 20%.

  When you use a power source other than the battery, the menu Item LCD B.L. is set to BRIGHT automatically and the item does not appear on the screen.

### Photo recording

You can record a still picture like a photograph for about seven seconds. This photo recording is useful when you want to enjoy a picture such as a photograph or when you print a picture using a video printer (not supplied). You can record about 340 pictures on a 40-minute tape.

Adminute tape.

Besides the operation described here, this camcorder can record a still picture on a memory stick or PC card (not supplied), using the memory card slot (see page 100). You can also record still/moving pictures on a mini DVCAM tape with all the pixels in the progressive mode. See page 35 for details.

(1) While pressing the small green button on the POWER switch, set it to CAMERA.

(2) Keep pressing PHOTO lightly until a still picture and "CAPTURE" appears on the LCD screen or in the viewfinder.

Recording does not start yet. To change the still picture, release PHOTO, select still picture again, and keep pressing PHOTO lightly again.

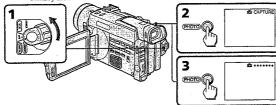
If you press PHOTO on the Remote Commander when a still picture appears on the LCD screen or in the viewfinder, the camcorder will record that still picture. However, you cannot select other still picture by using this button.

the LCD screen or in the viewthnder, the camcorder will record that still pictures. However, you cannot select other still pictures by using this button.

(3) Press PHOTO deeper.

The still picture on the LCD screen or in the viewfinder is recorded for about seven seconds. The sound during those seven seconds is also recorded.

To record a still picture while normal recording, press PHOTO deeper. Then the still picture is recorded for about seven seconds and the camcorder returns to



When shooting in the dark
Install the HVL-FDH2 video flash light (not supplied) to the accessory shoe. If the exposure is in manual exposure mode, set it to automatic exposure mode. When 4 appears next to the "CAPTURE" indicator on the LCD screen or in the viewfinder, the video flash is ready to be used.

Note on the still picture When the still picture recorded on this camcorder picture may be blurred. This is not a malfunction. corded on this camcorder is played back on another VCR, the

When you press PHOTO while recording a photo
The picture on the LCD screen or in the viewfinder whenever you press PHOTO will be
recorded. You cannot check the recorded picture by pressing PHOTO lightly.
After the moving picture is recorded as a still picture for about seven seconds, the camcorder
will go back to Standby mode.

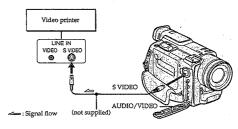
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#### Photo recording

### Printing the still picture

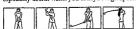
You can print a still picture by using the video printer (not supplied). Connect the video printer using the S video connecting cable (not supplied). Refer to the operating instruction of the video printer as well.

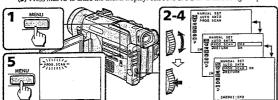


If the video printer is not equipped with 5 VIDEO input Use the supplied A/V connecting cable. Connect it to the AUDIO/VIDEO jack and connect the yellow plug of the cable to the VIDEO input of the video printer.

### Shooting with all the pixels - PROG. SCAN

When modifying the digital images on your personal computer, set PROG. SCAN to ON before shooting. You can record the images on a mini DVCAM tape frame by frame with higher resolution. Since the image taken in progressive mode does not go out of focus even in a pause, it is especially useful when you analyze high-speed actions such as sport scenes.





### To return to normal mode

the control dial. OFF in step 4, then press

Note on the progressive mode
The normal TV broadcast divides the screen into two finer fields and displays them in turns every 1/60 of a second (DSR-PD100) or 1/50 of a second (DSR-PD100P). Thus, the actual image displayed in an instant covers only half of the apparent image area. Displaying the whole image simultaneously on a full screen is called displaying with all the pixels. In this mode, the resolution of the still picture is twice as high as in the normal mode. This camcorder takes in an image every 1/30 of a second (DSR-PD100) or 1/25 of a second (DSR-PD100P), which may cause the image of a moving object to go out of focus.

The setting at the factory
This camcorder is originally programed to record still/moving pictures on a mini DVCAM tape in the normal TV format (Interlace format).

When shooting under fluorescent light

When shooting under fluorescent light
When shooting in the progressive mode under fluorescent light or light bulb, a rare
phenomenon may happen in which the screen lights up brightly (Flicker phenomenon),
is not a malfunction. If you want to stop this phenomenon, set PROG. SCAN to OFF in t

### Using the FADER function

You can fade in or out to give your recording a professional appearance. When fading in, the picture gradually fades in while the sound increases. When fading out, the picture gradually fades out while the sound decreases.



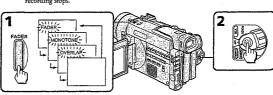
WOND ONE
When fading in, the picture gradually changes from black and white to color.
When fading out, the picture gradually changes from color to black and white.

(1) While the camcorder is in Standby mode, press FADER until the desired indicator flashes.

(2) Press START/STOP to start recording. The fade indicator stops flashing.

When fading out [b]
(1) During recording, press FADER until the desired indicator flashes

(2) Press START/STOP to stop recording. The fade indicator stops flashing, and then



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#### Using the FADER function

To cancel the fader function
Before pressing START/STOP, press FADER until the fade indicator disappears.

You cannot use the fader function in the following situations

-The cannoorder is in the photo recording.

- A title is displayed on the LCD screen or in the viewfinder. If the title is not necessary, erase it before using the fader function.

During fading, you cannot operate the DIGITAL EFFECT button.

- The fader function is effective in the following situations

   A big change of scene (FADE IN, FADE OUT)

   The beginning of a story (FADE IN)

   The end of a day (FADE OUT)

   Change the scene while leaving the trace of the previous scene

If you use the fader function repeatedly
The situation the subject is in cannot be seen clearly, thus making the picture difficult to enjoy.

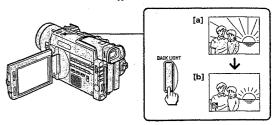
When the OVERLAP indicator appears

The camcorder automatically memorizes the image recorded on a tape. As the image is being memorized, the OVERLAP indicator flashes fast, and the playback picture is displayed. At this stage, the picture may not be recorded clearly, depending on the tape condition.

### Shooting with backlighting

When you shoot a subject with the light source behind the subject or a subject with a light background, use the BACK LIGHT function.

Press BACK LIGHT. The  $\ensuremath{\boxtimes}$  indicator appears on the LCD screen or in the viewfinder.



[a] Subject is too dark because of backlight.

[b] Subject becomes bright with backlight comp

#### After shooting

Be sure to release this adjustment condition by pressing BACK LIGHT again. The Sindicator disappears. Otherwise, the picture will be too bright under normal lighting

This function is also effective under the following conditions:

• A subject with a light source nearby or a mirror reflecting light.

• A white subject against a white background. Especially when you shoot a person wearing shiny clothes made of silk or synthetic fiber, his or her face tends to become dark if you do not use this function.

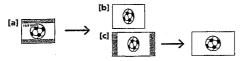
Note on the BACK LIGHT function When you press EXPOSURE or SHUTTER SPEED, the BACK LIGHT function is canceled.

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### Using the wide mode function

You can record a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9WIDE). The picture with black bands at the top and the bottom on the LCD screen or in the viewfinder [a] is normal. The picture on a normal TV [b] is horizontally compressed. You can watch the picture of normal images on a wide-screen TV [c].



(1) Set the POWER switch to CAMERA.

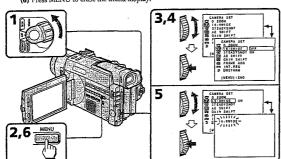
(2) Press MENU to display the meru.

(3) Turn the control dial to select 59, then press the dial.

(4) Turn the control dial to select 16, 50 WIDE, then press the dial.

(5) Turn the control dial to select ON, then press the dial.

(6) Press MENU to erase the menu display



### To cancel wide mode

Select OFF in step 5, then press the control dial.

To watch the tape recorded in wide mode
To watch the tape recorded in 16:9WIDE mode, set it to full mode. For details, refer to the
operating instruction of your TV.
Note that the picture recorded in 16:9WIDE mode looks compressed on a normal TV.

Notes on wide mode

•In wide mode, you cannot select the old movie function with DIGITAL EFFECT.

•You cannot select or cancel the wide mode during recording.

•You cannot use the wide mode function when you set PROG. SCAN to ON.

### Enjoying picture effect

Selecting picture effect You can make pictures like those of television with the Picture Effect function.











#### NEG. ART [a]

The color of the picture is reversed SEPIA

The picture is sepia. B&W

### The picture is monochrome (black and white).

**SOLARIZE [b]**The light intensity is clearer, and the picture looks like an illustration.

**SLIM** [c] The picture expands vertically.

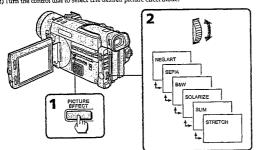
### STRETCH [d]

The picture expands horizontally

### Enjoying picture effect

### Using picture effect function

- (1) While in Standby mode, press PICTURE EFFECT.
- (2) Turn the control dial to select the desired picture effect mode.



To return to normal mode
Press PICTURE EFFECT so that the indicator disappears.

- Notes on the picture effect

  •When you turn the power off, the camcorder returns automatically to normal mode.

  •You cannot select SLIM and STRETCH when you set PROG. SCAN to ON.

  •While using the picture effect function, you cannot select the old movie function with DIGITAL EFFECT.

### Recording with various effects – digital effect

With the following functions of Digital Effect, you can add various visual effects to the picture. The sound is recorded normally.

STILL

You can record a still picture to be superimposed on a moving picture.



FLASH
You can record still pictures successively at constant intervals.

LUM).

ou can replace a brighter portion of a still picture with a moving picture.



TRAIL
You can record the picture which leaves an incidental image, such as a trail.

You can record the picture such as an old movie. The camcorder automatically sets the wide mode to 16:9WIDE, picture effect to SEPIA, and the appropriate shutter speed.

- (1) While in Standby mode or Recording mode, press DIGITAL EFFECT.
  The digital effect indicator flashes.

  (2) Turn the control dial to select the desired digital effect mode.

  (3) Press the control dial. The digital effect indicator lights up and the bars appear. The bar does not appear in the OLD MOVIE mode. The still picture is stored in memory in the STILL or LUMI. mode.

in the STILL or LUMI. mode.

(4) Turn the control dial to adjust effects.
The longer the bar is, the greater the effects are.

STILL: The proportion of still picture to moving picture.

FLASH: The length of the intervals.

LUMI.: The brightness of the area where you paste the moving picture.

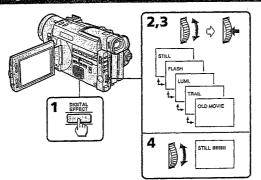
TRAIL: The length of time the incidental image remains.

OLD MOVIE: No adjustment necessary.

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#### Recording with various effects - digital effect



To cancel digital effects
Press DIGITAL EFFECT so that the indicator disappears

- Notes on digital effect

   You cannot use the following functions while using the digital effect.

   Functions using the FADER button

   Functions using the PATOTO button

   When you set the POWER switch to OFF, the digital effect will be canceled automatically.

### Notes on the OLD MOVIE mode

Notes on the OLD MOVE mode.

You cannot use the following functions in the OLD MOVIE mode.

- Functions using the PROGRAM AE button

- 16-9WIDE mode

- Functions using the PICTURE EFFECT button

### Shooting with manual adjustment.

Under normal conditions, this unit automatically makes various adjustments as it shoots. However, you can adjust manually the following functions to your preference.

Functions you can adjust by setting the AUTO LOCK selector to the center (auto lock release) position
Brightness (exposure), shutter speed, white balance, and program AE

Functions you can adjust by setting MENU Recording level, deactivating the Steady Shot, gain shift, and AE shift

Functions you can adjust by using other buttons/switches ND filter, focus, zebra pattern

The following describes how to adjust all the functions mentioned above except program AE (see page 54) and focus (see page 57).

AUTO LOCK selector
Set the selector as shown below to maintain or release the settings of the functions.



AUTO LOCK [a] Select this position to let the unit adjusts all the functions automatically.

HOLD [b] Select this position after setting the functions manually to maintain the settings.

Manual position [c] Select this position to adjust manually the functions listed above.

### Adjusting exposure

Adjust the exposure manually under the following cases.





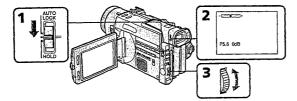
- [a]
  The background is too bright (back lighting)
  Insufficient light: most of the picture is dark

- [b]
   Bright subject and dark background
   To record the darkness faithfully
- (1) Set AUTO LOCK selector to the center (auto lock release) position while the camcorder is in Standby mode.

  (2) Press EXPOSURE. The exposure indicator appears on the LCD screen or in the
- viewfinder.

  (3) Turn the control dial to adjust the exposure.

### Shooting with manual ad



To return to automatic exposure mode
Set AUTO LOCK selector to AUTO LOCK or press EXPOSURE to turn off the exposure indicator.

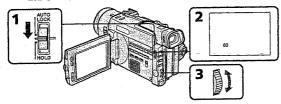
- Notes
   The control dial does not have a stop position.
   If you press PROGRAM AE, the exposure comes back to automatic adjustment again.
   When you adjust the exposure manually, you cannot use the BACK LIGHT function.

# Adjusting the shutter speed

- (1) Set AUTO LOCK selector to the center (auto lock release) position while the
- camcorder is in Standby mode.

  (2) Press SHUTTER SPEED. The shutter speed indicator appears on the LCD screen or
- in the viewfinder.

  (3) Turn the control dial to select the desired speed. The available shutter speed ranges from 1/4 to 1/10000.



To return to automatic shutter speed mode
Set AUTO LOCK selector to AUTO LOCK or press SHUTTER SPEED to turn off the shutter speed indicator.

When shooting at slow shutter speed
At slow shutter speed, automatic focus may be lost. Adjust focus manually using a tripod.

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### Shooting with manual adjustment

#### If you have selected 🗻 in step 3

If you have selected so in step 3
When you set the white balance to one-push white balance mode, the setting is locked and maintained even if lighting conditions change. You can achieve recording with natural colors without being affected by ambient light.

(With the so indicator on the screen)

(1) Shoot a white object such as paper fully on the LCD screen or in the viewfinder.

(2) Press the control dial.

The so indicator flashes quickly. When the white balance has been adjusted and stored in the memory, the indicator stops flashing. The setting will be maintained for about one hour after the battery is detached.

To return to automatic adjustments
Set AUTO LOCK selector to AUTO LOCK or press WHT BAL to turn off the white balance indicator.

- Notes on the & indicator on the screen

  The state of the indicator shows as follows:
  Slow flashing: white balance is not adjusted.
  Fast flashing: white balance is being adjusted.
  Lights up: white balance has been adjusted.

  When the & indicator remains flashing even if you press the control dial, shoot in automatic white balance mode.

- Notes on Write Bulance

   When you shoot with studio lighting or video lighting, use the & (indoor) mode.

   When you shoot with fluorescent lighting, use automatic white balance mode. If you use the & (indoor) mode, white balance may not be adjusted appropriately.

- Shooting when lighting conditions change

   When lighting conditions have changed, readjust the white balance with the control dial while the camcorder is in Standby mode.

   When you adjust the exposure and shutter speed manually, and move from indoors to outdoors, or vice versa, adjust the white balance again.

   When you move from indoors to outdoors, or vice versa, or detach the battery for replacement while shooting in automatic white balance mode or set the POWER switch to CAMERA, point the camcorder at a white subject for about 10 seconds before you start recording.

oting with manual adjustment

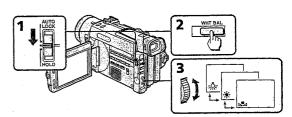
### Adjusting the white balance

White balance adjustment makes white subjects look white and allows more natural color balance for camera recording. Normally white balance is automatically adjusted. You can obtain better results by adjusting the white balance manually when lighting conditions change quickly or when recording outdoors: e.g., neon signs, fireworks.

(1) Set AUTO LOCK selector to the center (auto lock release) position while the

- camcorder is in Standby mode.

  (2) Press WHT BAL. The white balance indicator appears on the LCD screen or in the
- (2) Press Will Date the select the appropriate white balance mode under the following conditions. As you turn the dial, the display changes as follows:
   (2) One-push white balance) → ★ (Outdoor) → ♠ (Indoor).



Shooting conditions Display Adjusting the white balance according to the light source.
 This operation is not available during recording. Follow the steps described on the next page to adjust the settings again. 200 Recording a sunset/sunrise, just after sunset, just before sunrise, neon signs, or fireworks
Under a color matching fluorescent lamp ₩ (Outdoor) Lighting condition changes quickly
Too bright place such as photography studios
Under sodium lamps or mercury lamps : (Indoor)

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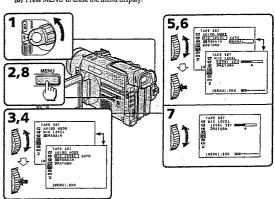
### Shooting with manual adjustment

### Adjusting recording level

You can adjust the recording sound level. Use headphones to monitor the sound when you

- adjust.
  (1) Set the POWER switch to CAMERA.

- (1) Set the POWER switch to CAMERA.
   (2) Press MENU to display the menu.
   (3) Turn the control dial to select \( \overline{\over



To adjust the microphone level automatically Select AUTO in step 5, then press the control dial.

- Notes on the adjustment

  The sound level setting is retained as long as the power is on and for about five minutes after removing the battery.

  Sound level indicator appears at the lower right on the LCD screen or in the viewfinder.

The sound input through the AUDIO/VIDEO jack You cannot adjust the recording level of the sound.

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#### Shooting with manual adjustment

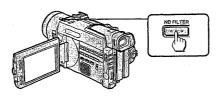
### Using the ND filter

Using the ND filter (corresponds to 16% of the quantity of light), you can record a picture clearly, preventing the picture from going out of focus under bright conditions.

When ND ON flashes on the LCD screen or in the viewfinder The ND filter is necessary. Press ND FILTER so that the ND ON indicator appears. The ND filter is now activated.

When ND OFF flashes on the LCD screen or in the viewfinder The ND filter is not necessary. Press ND FILTER so that the ND OFF indicator stops

flashing. The ND filter is now deactivated.

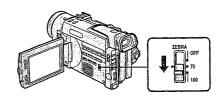


Shooting with manual adjustme

### Shooting with the zebra pattern

You can set the camcorder to display a zebra pattern (diagonal stripes) in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness exceeds a certain level. The portion of the picture where zebra pattern appears is an area of high brightness and overexposure. You can check the picture level of a subject by displaying the zebra pattern. Use the zebra pattern as a guide for adjusting the exposure and shutter speed so that you can get the desired picture.

Set the ZEBRA selector to 70 or 100.



## To erase the zebra pattern Set the ZEBRA selector to OFF.

Settings of the ZERRA selector

Setting	Meaning
70	The zebra pattern appears in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness is about 70 IRE (70%).
100	The zebra pattern appears in the portion of the picture on the LCD screen or in the viewfinder with a subject whose brightness exceeds more than 100 IRE (100%).
OFF	The zebra pattern does not appear on the LCD screen or in the viewfinder.

Note on shooting with the zebra pattern
Even though you see the zebra pattern on the LCD screen or in the viewfinder, the zebra
pattern is not recorded.

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#### Shooting with manual adjustment:

### Releasing the Steady Shot function

When the Steady Shot function is working, the camcorder compensates for camera-shake.

You can release the Steady Shot function when you do not need to use it. The \*\* indicator appears on the LCD screen or in the viewfinder. Do not use the Steady Shot function when shooting a stationary object with a tripod.

(1) Set the POWER switch to CAMERA.

(2) Press MENU to display the menu.

(3) Turn the control dial to select \*\* Size of the press the dial.

(4) Turn the control dial to select OFF, then press the dial.

(5) Turn the control dial to select STEADYSHOT, then press the dial.

(6) Press MENU It to grase the menu display.

- (6) Press MENU to erase the menu display

3,4 O ZOON IN 14:9WIOE W SIEADTSHOT ON IN AS SKIFT ♡ CO AE SRIFT
DE GAIN SRIFT
DE FRAME REC
INT. REC
D DRETURN 5 2,6 ♡ STEADYSHOT OFF M AE SHIF:

M GAIN SHIF

SHOP FRANC REC

INT. REC

D DRETURN

### To activate the Steady Shot function again

Select ON in step 5, then press the control dial.

Notes on the Steady Shot function

• The Steady Shot function will not correct excessive camera-shake.

• If you use a tele conversion lens or a wide conversion lens, the Steady Shot function may not be fully effective.

### Adjusting AE shift

Shooting with manual adjustment

- (1) Set the POWER switch to CAMERA.

  (2) Press MENU to display the menu.

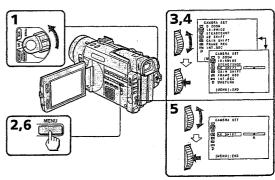
  (3) Turn the control dial to select AE SHIFT, then press the dial.

  (4) Turn the control dial to select AE SHIFT, then press the dial.

  (5) Turn the control dial to adjust brightness, then press the dial.

  Darker picture \( \to \text{Bright} \) press the dial.

  (6) Press MENU to erase the menu display.



#### To deactivate AE shift

Set the bar indicator at the center in step 5, then press the control dial.

When you adjust AE shift The  $\mathbf{8} - 4$  to  $\mathbf{8} + 4$  indicator is displayed on the LCD screen or in the viewfinder. The number varies corresponding to the AE shift level.

#### oting with manual adjust

### Adjusting gain shift

- (1) Set the POWER switch to CAMERA.

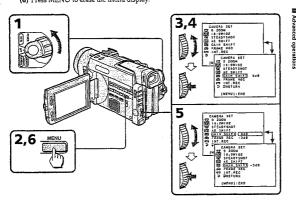
  (2) Press MENU to display the menu.

  (3) Turn the control dial to select (6d), then press the dial.

  (4) Turn the control dial to select (7d). SHIFT, then press the dial.

  (5) Turn the control dial to select -3dB, then press the dial.

  (6) Press MENU to erase the menu display.



### To deactivate gain shift

Select 0dB in step 5, then press the control dial.

#### What is gain shift

When shooting in bright conditions, the gain shift function automatically adjusts the automatic exposure control's gain value to -3dB as much as possible. This helps you shoot pictures with less noises in a bright condition. In dark conditions, the unit operates as usual

When you adjust gain shift
The B indicator is displayed on the LCD screen or in the viewfinder.

#### Using the PROGRAM AE function

You can select from five PROGRAM AE (Auto Exposure) modes to suit your shooting situation, referring to the following.

### Selecting the best mode

Select a proper PROGRAM AE mode referring to the following description.









#### A: Aperture priority mode

Selecting the aperture to determine the desired depth of field. Gain and the shutter speed are automatically set in combination with the aperture value to maintain appropriate exposure.

#### S: Shutter speed priority mode

Selecting the shutter speed manually. The exposure value changes in accordance with the selected shutter speed.

ኧ: Sports lesson mode Capturing high-speed action in sports such as golf or tennis

#### €: Sunset & Moon mode Recording sunset, night views, fireworks or neon signs

**§** : Low lux mode For recording a subject in insufficient light. Subject becomes bright.

#### Notes on focus setting

- Notes on rocus setuing.

  In the Sports lesson mode, you cannot take close-ups because the camcorder is set to focus only on subjects in the middle to far distance.

  In the Surset & Moon mode, the camcorder is set to focus only on distant subjects.

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#### Using the PROGRAM AE function

### Using the PROGRAM AE function

- (1) Set AUTO LOCK selector to the center (auto lock release) position while the camcorder is in Standby or Recording mode.
  (2) Press PROGRAM AE.
- (2) Press PROGRAM AE.
   Turn the control dial so that the symbol of the desired PROGRAM AE mode matches the indicator on the LCD screen or in the viewfinder. When you select the aperture priority mode or the shutter speed priority mode, press the control dial.
   In aperture priority mode (題 A) or shutter speed priority mode (題 S), turn the control dial to select the desired aperture value (F value) or shutter speed.
   Aberture priority mode:
- control dial to select the desired aperture value (it value) or shutter speed.

  Aperture priority mode:

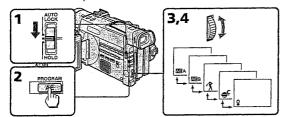
  Turn the control dial to select the desired aperture value. As you turn the dial, the F value changes between F1.6 and F11.

  For a smaller aperture, select a higher value. Gain and the shutter speed change in accordance with the selected aperture value.

Shutter speed priority mode:

Shutter speed priority mode: Turn the control dial to select the desired shutter speed. As you turn the dial, shutter speed changes between 1/60 and 1/10000 (DSR-PD100) or 1/50 and 1/10000 (DSR-PD100?). For a faster shutter speed, select a smaller value indicator on the LCD screen or in the viewfinder. The gain and aperture values change in accordance with the

selected shutter speed.



To return to automatic adjustment mode
Set AUTO LOCK selector to AUTO LOCK or press PROGRAM AE so that the indicator disappears.

When you focus in telephoto You cannot choose F1.6, F2 and F2.4.

#### Using the PROGRAM AE function

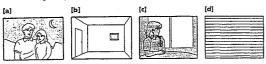
About the depth of field is the in-focus range, measured from the distance behind a subject to the distance in front. The depth of field can vary with the iris (F value) and the focal length. Lowering the F value (large iris) reduces the depth of field. Raising the F value (small iris) provides a larger depth of field. Zooming in telephoto position offers a smaller depth of fie wither the depth of field in wide-angle position is greater.

The depth of field	Shallow	Deep
Iris	Open (Low F value)	Close (High F value)
Zoom	Telephoto (T)	Wide (W)

### Focusing manually

### When to use manual focus

In the following cases you should obtain better results by adjusting the focus manually.



- Insufficient light [a]

- Insufficient light [a]
   Subjects with little contrast walls, sky, etc. [b]
   Too much brightness behind the subject [c]
   Horizontal stripes [d]
   Subjects through frosted glass
   Subjects beyond nets, etc.
   Bright subject or subject reflecting light
   Shooting a stationary subject when using a tripod

PUSH AUTO

(2) Turn the focus ring to focus on the subject.

To focus in infinity
Slide FOCUS to INFINITY.

A indicator appears on the LCD screen or in the viewfinder.
This function is useful when the nearer subject is focused automatically, and you want to focus on a faraway subject.

Adjusting focus manually

When focusing manually, first focus in telephoto before recording, and then reset the shot

length.
(1) Slide FOCUS down to MANUAL. The 👁 indicator appears on the LCD screen or in the

To shoot with auto focusing momentarily
Press PUSH AUTO.
The auto focus functions while you are pressing PUSH AUTO.
Use this button to focus on one subject and then another with smooth focusing.
When you release PUSH AUTO, manual focusing resumes.

To return to the autofocus mode
Slide FOCUS up to AUTO to turn off r or indicator.

To shoot in relatively dark places or to shoot the subject moving quickly outside Shoot at wide-angle after focusing in the telephoto position.

If # lights up Subject is too close.

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### Interval recording

You can make a time-lapse recording by setting the camcorder to automatically record and standby sequentially. You can achieve an excellent recording for flowering, emergence, etc., with this function.

(1) Set the POWER switch to CAMERA.

(2) Press MENU to display the menu.

(3) Turn the control dial to select to the press the dial.

(4) Turn the control dial to select SET, then press the dial.

(5) Turn the control dial to select SET, then press the dial.

(6) Set WAIT TIME and REC TIME.

① Turn the control dial to select WAIT TIME, then press the dial.

② Turn the control dial to select the desired waiting time, then press the dial.

The time: 30SEC ← JIMIN ← 50MIN ← 10MIN.

③ Turn the control dial to select REC TIME, then press the dial.

The time: 0.3SEC ← JISEC ← 1.5SEC ← 2.5EC.

③ Turn the control dial to select PRETURN, then press the dial.

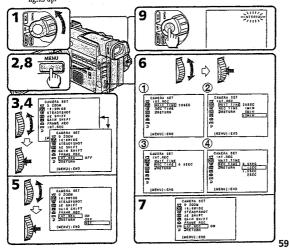
The time: 0.3SEC ← 1.5SEC ← 1.5SEC ← 2.5EC.

(7) Turn the control dial to select TIME, then press the dial.

(8) Press MENU to erase the menu display. The interval recording indicator flashes.

(9) Press STAKT/STOP to start interval recording. The interval recording indicator lights up.

- lights up.



### Interval recording

To cancel the interval recording
• Set INT.REC to OFF in the menu system.
• Set the POWER switch to OFF, VTR or MEMORY.

### To stop the interval recording momentarily and perform normal

recording
Press START/STOP. You can perform the normal recording only once. To cancel the normal recording, press START/STOP again.

During the interval recording mode The INTERVAL indicator appears.

- Notes on interval recording

  •You cannot do interval recording with photo recording.

  •You cannot perform interval recording in the MEMORY mode.

  •There may be a discrepancy in recording time of up to +/- 6 frames from the selected time.

# Connecting the external microphone with the XLR connector

- When using the ECM-670 external microphone (not supplied), attach the CAC-12 microphone holder and supplied XIR adaptor.

  (1) Attach the XIR adaptor to the accessory shoe on the camcorder and tighten the screw of the XIR adaptor.

  (2) Attach the microphone holder with the supplied screws.

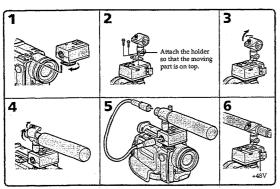
- (4) A MARCH THE THEOPHONE ROLLER WITH THE SUPPLIED SCREWS.

  (3) Loosen the microphone holder screw and open the cover.

  (4) Place the microphone into the holder, close the cover, and tighten the screw.

  (5) Connect the microphone to the MIC IN connector on the XLR adaptor, using a microphone cable (not supplied).

  (6) Set the +48V switch to ON.



- Notes

  When you use a wind screen other than the one supplied with ECM-670, make sure that
  the wind screen does not appear on the screen, using an underscan monitor.

  By setting the ATT switch to ON, you can reduce unnecessary noise by about 20 dB.
  When detaching the microphone cable, do so while holding the PUSH button down.

  When detaching the XLR adaptor, do so after having loosened the screw of the XLR
  adaptor.

Note on the wide conversion lens

When the wide conversion lens is attached to the camcorder, the Steady Shot function may not be fully effective.

Align the groove on the wide conversion lens hood with the protruding part on the wide conversion lens, then turn the ring in the direction of the arrow.

Attaching the wide conversion lens hood

To attach the wide conversion lens securely Turn the ring of the lens while lightly pressing the wide conversion lens down on the  $\rm 100\,M_\odot$ 

Attaching the supplied wide conversion lens

Hold the camcorder with its lens pointing upward. Align the groove on the wide conversion lens with the protruding part on the camcorder lens, then turn the ring in the direction of the

Note on the wide conversion lens hood

When the hood is attached to the wide conversion lens, you cannot attach a filter, etc. If you need to use a filter, detach the hood before attaching the filter.

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### Superimposing a title

If you use a tape with cassette memory, you can superimpose the titles while recording or after recording. When you play back the tape, the title is displayed for five seconds from the point where you superimposed it.

You can select from eight preset titles and two original (CUSTOM TITLE) to superimpose

### Superimposing titles

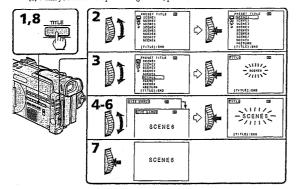
- (1) Press TITLE to display the title menu.
  (2) Turn the control dial to select □ then press the dial.
  (3) Turn the control dial to select the desired title, then press the dial. The titles are
- displayed.

  (4) Turn the control dial to select the color, size, or position, then press the dial.
- (5) Turn the control dala to select the desired item, then press the dial.

  (6) Repeat steps 4 and 5 until the title is arranged as desired.

  (7) Press the control dial again to complete the setting.

  (8) When you want to stop recording the title, press TITLE.



To superimpose the title from beginning After step 7, press START/STOP to start recording.

To superimpose the title while you are recording

After pressing START/STOP to start recording, start from step 1. In this case, beep or melody is not heard.

To use the custom title
When you want to use the custom title, select □ in step 2.

### Superimposing a title

#### Notes on superimposing a title

- Notes on superimposing a true

  if you have not given any custom title, "----..." appears on the display.

  The FADER function works while the title is displayed, however, the title does not fade.

  If you display the menu or title menu while superimposing a title, the title is not recorde
  while the menu or title menu is being displayed.

Title color changes as follows: WHITE  $\longleftrightarrow$  YELLOW  $\longleftrightarrow$  VIOLET  $\longleftrightarrow$  RED  $\longleftrightarrow$  CYAN  $\longleftrightarrow$  GREEN  $\longleftrightarrow$  BLUE

Title size changes as follows: SMALL ←→ LARGE

Title position changes as follows:
When you select the title size "SMALL," you can choose 9 positions. When you select the title size "LARGE" you can choose 8 positions.

- Notes on the title

   Depending on size or position of the title, both of date and time or either of them is not displayed.
- displayed.

  If you input 13 characters or more for a LARGE title, the title is automatically reduced into a SMALL size after the position is set.

  When the title is displayed, LCD BRIGHT and microphone level indicators do not appear.

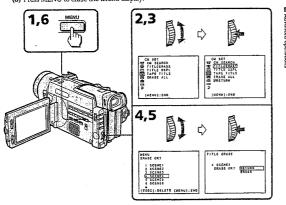
  Normally, you can register up to 20 titles, each of which consists of about 5 characters, in the cassette memory. In case the cassette memory has aiready stored dates, photo data, and a cassette label to its full capacity, you can register up to 1 titles in it. A cassette can store up to 6 dates, 12 photo data, and one cassette label in its memory.

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#### Superimposing a title

### Erasing a title

- (1) Press MENU to display the menu.
  (2) Turn the control dial to select SIII, then press the dial.
  (3) Turn the control dial to select TITLEERASE, then press the dial.
  (4) Turn the control dial to select the title you want to erase, then press the dial.
  (5) Make sure the title is the one you want to erase, then press the control dial again.
- (6) Press MENU to erase the menu display.



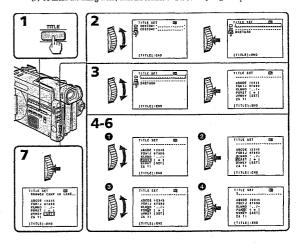
NOTE
If you use a cassette tape set to prevent accidental erasure, you cannot erase the title. Slide the protect tab so that the red portion is not visible.

### Making a custom title

If you use a tape with cassette memory, you can make up to two titles and store them in the camcorder. We recommend you to set the POWER switch to VTR or eject the cassette before

- cancorrer. We recomment you was that 10 Habitan and 10 Habitan and
- then press the dial.

  (4) Turn the control dial to select the column of the desired character, then press the
- dial.
  (5) Turn the control dial to select the desired character, then press the dial.
- (6) Repeat steps 4 and 5 until you finish the title.
  (7) To finish the titling work, turn the control dial to select [SET], then press the dial.



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### Making a custom title

To edit a title you have stored In step 3, select CUSTOM1 or CUSTOM2, depending on which title you want to edit, then change the title.

If you take 5 minutes or longer to enter characters while a cassette is in the camcor The power goes off automatically. Characters you have entered remain. Set the POWER switch to OFF once, then to CAMERA, then proceed from step 1.

To erase a character
In step 4, turn the control dial to select [6] then press the dial. The last character is erased.
Repeat this step until all characters are deleted.

### Labeling a cassette

If you use a hape with cassette memory, you can label a cassette. The label can consist of up to 10 characters and is stored in cassette memory. When you insert the labeled cassette and turn the power on, the label is displayed on the LCD screen, in the viewfinder, or on the TV screen.

(1) Insert the cassette you want to label.

(2) Set the POWER switch to VTR.

(3) Press MENU to display the menu.

(4) Turn the control dial to select Tayle TiTLE, then press the dial.

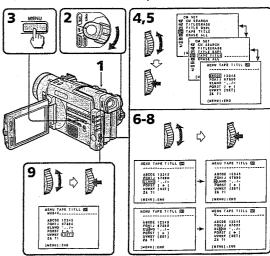
(5) Turn the control dial to select Tayle TiTLE, then press the dial.

- dial.

  (7) Turn the control dial to select the desired character, then press the dial.

  (8) Repeat steps 6 and 7 until you finish the label.

  (9) Turn the control dial to select [SET], then press the dial.



#### Labeling a cassette

To erase a character
In step 6 turn the control dial to select [ + ], then press the dial. The last character is erased.

#### To change the label you have made

ssette to change the label, and operate in the same way to make a new label.

If the  $\mbox{GU}$  mark appears in step 5 The cassette memory is full. If you erase the title in the cassette, you can label it.

# If you have superimposed titles in the cassette When the label is displayed, up to 4 titles also appear.

Note on "----" indicator displayed on the LCD screen or in the viewfinder The "----" indicates the number of characters you can select for the label. When the indicator has fewer than 10 spaces, the cassette memory is full.

#### Note on the cassettes

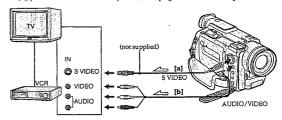
If you use a cassette tape set to prevent accidental erasure, you cannot label it. Slide the protect tab so that the red portion is not visible.

### Watching on a TV screen

Connect the camcorder to your TV or VCR to watch the playback picture on the TV screen. When monitoring the playback picture by connecting the camcorder to your TV, we recommend you to use house current (mains) for the power source.

### Connecting directly to a TV or VCR with Audio/Video input jacks

Open the jack cover and connect the camcorder to the inputs on the TV by using the supplied A/V connecting cable. Set the TV/VCR selector on the TV to VCR. Turn down the volume of the camcorder. To get higher quality pictures in DVCAM format, connect the camcorder to your TV using the S video connecting cable (not supplied). If you are going to connect the camcorder using the S video connecting cable (not supplied) [a], you do not need to connect the yellow (video) plug of the A/V connecting cable [b].



: Signal flow

If your VCR or TV is a monaural type Connect only the white plug for audio on both the camcorder and the VCR or the TV. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.

When you adjust the TV screen Set COLOR BAR (COLOUR BAR) to ON in the menu system. The color bar is displayed on the TV screen  $^{\circ}$ 

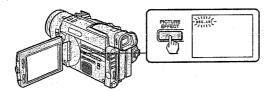
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### Viewing the picture with the picture effect

You can play back recorded images with the picture effect. The available picture effects are NEG. ART, SEPIA, B&W and SOLARIZE.

During playback, press PICTURE EFFECT. See page 40 for details on the picture effect.



To return to normal mode
Press PICTURE EFFECT so that the indicator disappears

if you turn the power off or stop playing back The picture effect is automatically canceled.

The picture you apply picture effects to The picture with the picture effect is not output through the  $\frac{1}{6}$  DV IN/OUT jack

### Viewing the picture with the digital effect

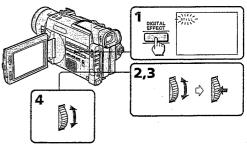
You can play back recorded images with the digital effect. The available digital effects are STILL, FLASH, LUMI. and TRAIL. (1) During playback, press DIGITAL EFFECT.

(2) Turn the control dial to select the desired digital effect mode.

(3) Press the control dial. The digital effect indicator lights up and the bars appear. The still picture is stored in memory in the STILL or LUMI. mode.

(4) Turn the control dial to adjust the effects.

See page 42 for details on the digital effect.



#### To return to normal mode

Press DIGITAL EFFECT so that the indicator disappears.

If you turn the power off or stop playing back. The digital effect is automatically canceled.

The picture you apply digital effects to The picture with the digital effect is not output through the  $\frac{1}{8}$  DV IN/OUT jack.

# Searching the boundaries of recorded tape with date—date search

You can search for the boundaries of recorded tape with date – Date Search function. To search the beginning of the specific date and play back from the point, there are two ways:

• Using cassette memory, you can select the date displayed on the LCD screen.

• Without using cassette memory.

You can only operate with the Remote Commander.

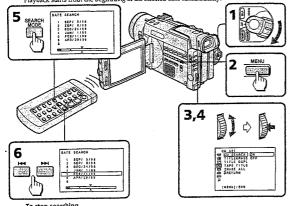
### Searching for the date by using cassette memory

You can use this function only when playing back a tape with cassette memory (p. 116).
(1) Set the POWER switch to VTR.
(2) Press MENU to display the menu.
(3) Turn the control dial to select CM SEARCH in (1), then press the dial.

(4) Turn the control dial to select ON, then press the dial.
(5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicator appears.

(6) Press I◄ or ►► to select the date for playback.

Playback starts from the beginning of the selected date autor



To stop searching Press 麗.

Notes

• The interval of the boundaries between the dates needs more than two minutes. The camcorder may not search if the beginning of the recorded date is too close to the next one.

• The black cursor on the screen indicates the date that was selected previously.

• If a tape has a blank portion in the beginning or between recorded portions, the date search function will not work correctly.

• Up to six date data can be stored in a cassette memory.

### Searching the boundaries of recorded tape with date – date search

## Searching for the date without using cassette memory

If you use the tape without cassette memory, skip steps 3 and 4.

(1) Set the POWER switch to VTR.

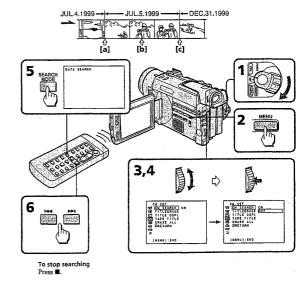
(2) Press MENU to display the menu.

(3) Turn the control dial to select CM SEARCH in (1), then press the dial.

(4) Turn the control dial to select OFF, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the date search indicate appears.

(5) Press SEARCH WIGHER ON the Remote Community Press Feel indicator appears.
(6) When the current position is [b], press I◄ to search towards [a] or press F►I to search towards [c]. Each time you press I◄ or F►I, the camcorder searches for the previous or next date.
Playback starts automatically when date changed.



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# Searching the boundaries of recorded tape with title – title search

You can search for the boundaries of recorded tape with title – Title Search function. If you use a tape with cassette memory, you can select the title displayed on the LCD screen.

You can only operate with the Remote Commander.

### Searching for the title by using cassette memory

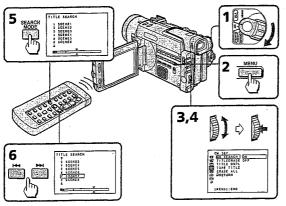
You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

indicator appears.

(6) Press I←← or ➤➤I to select the title for playback.

Playback starts from the scene of the selected title automatically.



You cannot superimpose or search a title, if you use a cassette tape without cassette

memory.

• The camcorder may not search, if a tape has a blank portion in the between of the recorded 75

# Searching for a photo – photo search/photo scan

You can search for the recorded still picture - Photo Search function. There are two modes in

Figure 2 date which is displayed on the LCD screen.

Without using cassette memory.

You can also search for still pictures one after another and display each picture for five seconds automatically – Photo Scan function. Even if your tape has no cassette memory, you

can use the Photo Scan function. You can only operate with the Remote Commander.

### Searching for a photo by using cassette memory – photo search

You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

You can use this function only when playing back a tape with cassette memory (p. 116).

(1) Set the POWER switch to VTR.

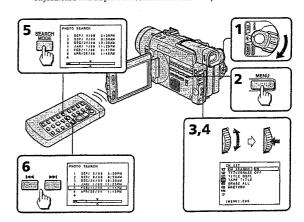
(2) Press MENU to display the menu.

(3) Turn the control dial to select CM SEARCH in (30), then press the dial.

(4) Turn the control dial to select ON, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the photo

(6) Press idea or b→i to select the date for playback.
Playback starts from the photo of the selected date automatically.



## Searching for a photo-photo search/photo/scarr

To stop searching

Note
When you play back a tape which has a blank portion in the between of the recorded portions, the photo search function may not work correctly.

# Searching for a photo without using cassette memory - photo search

If you use a tape without cassette memory, skip the steps 3 and 4.

(1) Set the POWER switch to VTR.

(2) Press MENU to display the menu.

(3) Turn the control dial to select CM SEARCH in to the press the dial.

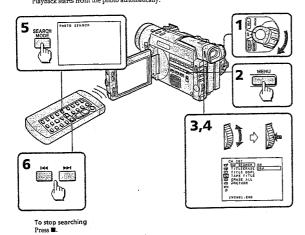
(4) Turn the control dial to select OFF, then press the dial.

(5) Press SEARCH MODE on the Remote Commander repeatedly, until the photo search indicator appears

(5) Press SANKET mode on the tended contained represent indicator appears.

(6) Press ◄◄ or ▶►! to select the photo for playback. Each time you press !◄◄ or ▶►!, the camcorder searches for the previous or next scene.

Playback starts from the photo automatically.



### Scanning photo – photo scan

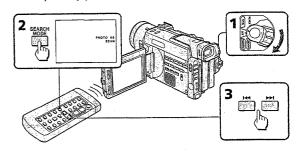
You can use this function whether the tape has cassette memory or not.

(1) Set the POWER switch to VTR.

(2) Press SEARCH MODE on the Remote Commander repeatedly until the photo scan indicator displayed on the LCD screen.

(3) Press I◀ or ▶▶1.

Each photo is displayed for about 5 seconds automatically.



To stop scanning Press .

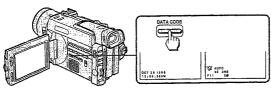
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### Displaying recording data – data code function

You can display recording data (date/time or various settings when recorded) on the LCD screen or in the viewfinder during playback (Data Code). The Data Code is also displayed on the TV.

Press DATA CODE during playback.



To select the items to be displayed

Set DATA CODE in the menu system, and select the following items:

When DATE/CAM is selected: date → various settings (SteadyShot OFF, PROGRAM AE, shutter speed, white balance, aperture value, gain) → no indicator.

When DATE is selected: date → no indicator.

When you record a picture with adjusting the exposure to the darkest manually "CLOSE" appears at the position of the iris indicator on the LCD screen or in the view ewfinder.

When bars (----) appear

• A blank portion of the tape is being played back.

• The tape was recorded by a canncorder without having date and time set.

• The tape is unreadable due to tape damage or noise.

Note

The pictures taken with the memory card slot is not recorded with the camera data.

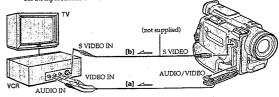
### Editing onto another tape

You can create your own video program by editing with any other [BVCAM], DVCAM, DV DV, "MY min DV, BI 8 mm, HIB HIS, (BIS VHS, SIBIS S-VHS, WISE VHSC, SIBIS S-VHSC, BIS Beatmax or SIBIS BLOOK SIBIS S-VHSC, BIS Beatmax or SIBIS BLOOK SIBIS S-VHSC, BIS Beatmax or SIBIS S-VHSC, BIS Beatmax S-VHSC, BIS BEA

### Before editing

Connect the camcorder to the VCR using the supplied A/V connecting cable or the VMC-IL4415/IL4435/2DV/4DV i.LiNK cable (DV connecting cable) (not supplied).

Using the A/V connecting cable [a] or 5 video connecting cable (not supplied) [b]
Set the input selector on the VCR to LINE.



Signal flow

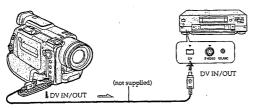
Notes on editing when using the A/V connecting cable

• Press DATA CODE, SEARCH MODE on the Remote Commander, or DISPLAY to turn off
the display indicators. Otherwise, the indicators will be recorded on the lape.

• If your TV or VCR is a monaural type, connect the yellow plug of the A/V connecting
cable for video to the TV or VCR. Connect only the white or red plug for audio to the TV or
VCR. If you connect the white plug, the sound is L (left) signal. If you connect the red plug,
the sound is R (right) signal.

• You can edit precisely by connecting a LANC cable to this camcorder and other video
equipment having fine synchro-editing function, using this camcorder as a player.

Using the i.LINK cable (DV connecting cable)
Simply connect the VMC-ILA415/ILA435/2DV/ADV i.LINK cable (DV connecting cable)
for supplied to § DV IN/OUT and to DV IN/OUT of the DV products. With digital-todigital connection, video and audio signals are transmitted in digital form for high-quality



: Signal flow

Notes on editing when using the i.LINK cable (DV connecting cable)

• You can record picture, sound and system data at the same time on the DV products by using the i.LINK cable (DV connecting cable) only.

• You cannot edit the titles, display indicator or the contents of cassette memory.

• If you record playback pause picture with the § DV IN/OUT jack, the recorded picture becomes rough. And when you play back the picture using the other video equipment, to picture may jitter.

• You can also use the camcorder as a recorder with this connection. In this case "DV IN" indicator appears on the screen.

• When you use the camcorder as a recorder, the color balance may be incorrect on the monitor screen. But this is not recorded on the tape.

To perform a more precise editing
Use DV synchro-editing function (see page 82).

### Starting editing

(1) Insert a blank tape (or a tape you want to record over) into the VCR, and insert your recorded tape into the camcorder.

(2) Play back the recorded tape on the camcorder until you locate the point where you want to stair editing, then press II to set the camcorder in playback pause mode.

(3) On the VCR, locate the recording start point and set the VCR in recording pause mode.

(4) Press II on the camcorder and VCR simultaneously to start editing.

### To edit more scenes

To stop editing
Press 
on both the camcorder and the VCR.

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### Editing partially on a mini DVCAM tape - DV synchro-editing

Notes

• If you use other than Sony DVCAM equipment, the synchronization may become less precise or the unit may not function properly.

• You cannot set DV EDITING IN or OUT on a blank portion of the tape.

Errors in **auplicating**If you connect this camcorder to Sony equipment with DV jack, the range of errors is within +/-5 frames. The range may become wider in the following conditions.

The interval between DV EDITING IN and OUT is less than five seconds.

DV EDITING IN is set at the beginning of the tape.

DV synchro-editing is performed repeatedly.

If you do not make connections with i.LINK cable (DV connecting cable) The screen shows NOT READY, and you cannot select DV EDITING.

# Editing partially on a mini DVCAM tape – DV synchro-editing

By simply selecting the scenes to edit, you can duplicate the desired portion on a tape, using other equipment connected with an iLINK cable (DV connecting cable). The scenes can be selected by frame. Since the camcorder exchanges digital signals, you can edit with little audio and video deterioration. You cannot duplicate titles, display indicators or the contents of cassette memory. The connection is the same as on page 81.

(1) Insert a recorded tape into the camcorder and insert a blank tape into the DVCAM product.

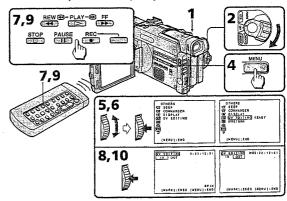
product.
(2) Set the POWER switch of the camcorder to VTR.

1.2) set the PUWLIK switch of the camcorder to VIR.
1.3 Set the input selector to DV input on the DVCAM product. If the DVCAM product is another DVCAM camcorder, set its POWER switch to VIR.
1.4 Press MENU to display the menu.
1.5 Turn the control dial to select Eig. then press the dial.
1.6 Turn the control dial to select DV EDITING, then press the dial.
1.7 Lising the tame transport buttons locate the noint where you want to start editing.

Using the tape transport buttons, locate the point where you want to start editing, then press 11 to set the camcorder in playback pause mode.

Press the control dial or MARK on the Remote Commander to set DV EDITING

IN.
(9) Using the tape transport buttons, locate the point where you want to end editing, then press II to set the camcorder in playback pause mode.
(10) Press the control dial or MARK on the Remote Commander to set DV EDITING OUT. The editing process starts. When the process ends, the camcorder and the DVCAM product automatically set to pause mode.



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### Recording from a VCR or TV

You can record a tape from another VCR or a TV program from a TV that has audio/video outputs. Connect the camcorder to the VCR or TV.

(1) Set the POWER switch to VTR and set DISPLAY to LCD in the menu system.

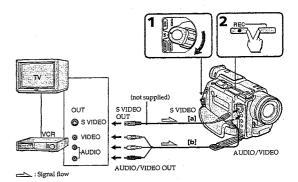
(2) Press ● REC and the button on the right together at the point where you want to

start recording.

In recording and the recording pause mode, S VIDEO and AUDIO/VIDEO jacks automatically work as input jacks.

If your VCR or TV has an S video jack, connect using the S video cable (not supplied) [a] to

obtain a high quality picture.



If your TV or VCR is a monaural type, connect the yellow plug of the A/V connecting cable for video to the TV or VCR. Connect only the white or red plug for audio to the TV or VCR. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.

If you are going to connect the camcorder using the S video cable (not supplied) [a], you do not need to connect the yellow (video) plug of the A/V connecting cable [b] .

Notes

• If the S video plug is not provided on your TV or VCR, do not connect the S video cable (not supplied) to the camcorder. Pictures will not appear.

• The dual sound cannot be recorded in this camcorder.

• If you fast-forward or slow-playback on the other equipment, the image being recorded may turn black and white. When recording from other equipment, be sure to play back the original tape at normal speed.

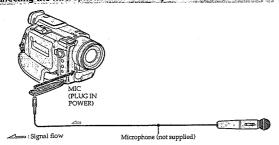
To stop recording

### Audio dubbing

You can record an audio sound to add to the original sound on a tape by connecting audio equipment or a microphone. If you connect the audio equipment, you can add sound to yor recorded tape by specifying the starting and ending points. The original sound will not be

erased. You can only operate with the Remote Commander.

### Connecting the microphone with the MIC Jack



You can check the recorded picture and sound by connecting the AUDIO/VIDEO jack to a TV.

The recorded sound is not output from a speaker. Check the sound by using the TV or

# Connecting the microphone with the intelligent accessory shoe using the XLR adaptor

Connection is the same as shown in p. 61.



You can check the recorded picture and sound by connecting the AUDIO/VIDEO jack to a TV.

1 v.
The recorded sound is not output from a speaker. Check the sound by using the TV or

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To play back the new recorded sound Adjust the balance between the original sound (ST1) and the new sound (ST2) by selecting AUDIO MIX in the menu system.



Five minutes after when you disconnect the power source or remove the battery pack, the setting of AUDIO MIX returns to the original sound (STI) only. The factory setting is original sound only.

If you make all the connections

II you make an the connections
The audio input to be recorded will take precedence over others in the following order

• MIC (PLUG IN POWER) jack

Intelligent accessory shoe
 AUDIO/VIDEO jack
 Built-in microphone

If an i.LINK cable (DV connecting cable) is connected to this unit You cannot add a sound to a recorded tape.

If you disconnect or connect a cable to the camcorder during recording The recording may stop.

Notes on audio dubbing

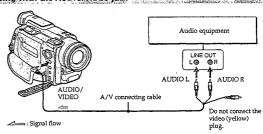
• A new sound cannot be recorded on a tape already recorded in the FS48K (16-bit) mode kHz, 441 kHz or 48 kHz).

• When an external microphone is not connected, the recording will be made through the built-in microphone of the camcorder.

• If you add a new sound on a tape recorded with another camcorder (including DSR-PD100/PD100P), the sound quality may become worse. recorded on a tape already recorded in the FS48K (16-bit) mode (32

You cannot add audio with the BDV IN/OUT jack.

### Dubbing with the AUDIO/VIDEO jack



The picture is not output from the AUDIO/VIDEO jack. Check the recorded picture on the LCD screen or in the viewfinder, as well as check the recorded sound by using a speaker or

#### Dubbing with the built-in microphones

No connection is necessary.

#### Adding an audio sound on a recorded tape

(1) Insert your recorded tape into the camcorder. (2) Set the POWER switch to VTR.

(3) On the camcorder, locate the point where the recording should begin by pressing 

→ or

→. Then press II to set it to playback pause mode.

(4) Press AUDIO DUB on the Remote Commander.

(5) Press II on the Remote Commander and at the same time start playing back the audio

(6) Press ■ on the Remote Commander at the point where you want to stop recording.

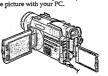
# Memory card slot operations

### Using the memory card slot — introduction

This camcorder is equipped with a memory card slot that conforms to ATA specification of PC Card standard.

You can record still images to memory sticks using the supplied PC card adaptor or to PC cards (not supplied). You can exchange image data with other equipment such as personal computers etc., using memory sticks or PC cards.

Image Record the still image on memory stick with the PC card adaptor. Play back the picture with your PC.

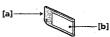




About memory stick and PC card adaptor
The memory stick is a brand new type of recording medium that records images and sounds as digital data and operates just like a PC card.

Memory Stick is the registered trademark of Sony Corporation.

Precautions



- Do not touch the terminal of the memory stick [a] by your hand or a metal object.
   Do not attach any other material than the supplied label on the label space of the memory stick [b].
- stick [b].

  Keep dust or extraneous matter out of the connector and memory stick slot of the PC card adaptor.

  Do not strike, bend, or drop the memory stick or PC card adaptor.

  Do not strike hend, or drop the memory stick or PC card adaptor.

  Do not wet the memory stick or PC card adaptor.

  Do not wet or store the memory stick or PC card adaptor in the following areas:

  Hot locations such as the inside of a car or the outdoors under hot weather.

- Locations exposed to direct sunlight.
   Humid or corrosive locations.
   Carry or store the memory stick or PC card adaptor in its supplied case.

For proper operation

Setting the write-protect switch to "LOCK" disables you to record or delete data.

We recommend that you make a backup copy of important data.

Do not remove the memory stick while reading or writing data.

Recorded data may be lost or damaged in the following situations:

When you remove the memory stick or PC card adaptor or turn off the camcorder while reading or writing data.

When you use the memory stick or PC card adaptor in the locations subject to static electricity or electrical noise.

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#### Using the memory card slot — introduction

Data file names of image Example: MVC00001.jpg

On file format (JPEG)
This unit compresses image data in JPEG format (extension .jpg) and simultaneously records thumbnail data for the index screen. The index screen data is varies only on this unit.

The types of PC cards you can use

Use TYPE II PC cards that conform to ATA specification of PC card standard. Format the PC card with this camcorder before use. Once you format the PC card, you can store data of up to 64 MB in it.

Compatible PC cards
HITACHI
HB286008A3, HB286015A3, HB286030A3, HB286045A3, HB286060A3
SANDISK
SDP3B-2-101-00, SDP3B-4-101-00, SDP3B-6-101-00, SDP3B-8-101-00, SDP3B-10-101-00, SDP3B-20-101-00, SDP3B-40-101-00
Be sure to refer to the instruction manual supplied with the PC card.

About the power source
When you use the memory card slot, getting the power from a wall outlet is recommusing the AC power adaptor.

About the remaining battery indicator
This camcorder displays remaining recording/playback time on the LCD screen or in the viewfinder. This function may not work properly in certain operating conditions. Especial when using the memory card slot, the correct remaining time may not be indicated due to increased power consumption. This is not a malfunction.

Power supply
When using a video light (not supplied) or similar equipment connected to the intelligent
accessory shoe of the camcorder, recording an image to a memory stick or PC card may
result in a temporary power shortage in the accessory shoe, causing the video light to go out.
This does not affect other functions.

When using a battery case
When using a battery case (not supplied) such as the EBP-L7, you cannot perform operations
that require the PC card adaptor. The screen displays "FOR "InfoLITHIUM" BATTERY
ONLY."

Note on playback compatibility

This camcorder is not guaranteed to properly play back images shot with other equipment. The images shot with this camcorder are not guaranteed to be played back properly with other equipment.

**CAUTION**Do not insert your finger or an object into the memory card slot.

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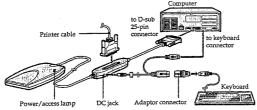
### Using the memory card slot –introduction

When the PC card adaptor or PC card does not come out Remove the battery before ejecting the PC card adaptor/PC card.

### Connecting the PC card/parallel port adaptor with your computer

To display images recorded on the memory stick or PC card on the computer monitor, connect the PC card/parallel port adaptor with your computer. Turn off your computer, and then connect the parallel port adaptor with your computer as illustrated below.

Install the MSAC-PR1 device driver into your computer from the supplied CD-ROM. For details, refer to "READ ME" on the CD-ROM.



To eject the PC card/PC card adaptor Press the eject button.

- Notes on the connection

   Select the one from the two DIN connectors that matches the keyboard connector of the computer, and use this connector to connect the computer.

   When connecting the PC card/parallel port adaptor and the keyboard, make sure sizes of the DIN connector of the keyboard and power cord match, then use the adaptor connector
- For notebook computers, there is no need to connect the keyboard.

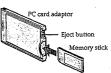
Note on the power/access lamp
Do not insert/remove the PC card adaptor or memory stick when the power/access lamp is
flashing; otherwise data on the memory stick or PC card may become damaged.

### Using the memory card slot —introduction

#### Inserting a memory stick into PC card adaptor

Insert a memory stick with its connector side facing down.

Before inserting, check that the write protect switch is not set to LOCK position for recording a still picture.



To eject the memory stick

#### Inserting the PC card adaptor or PC card

With the upper side of the connector facing the LCD panel, insert the PC card adaptor or PC card until it clicks.



To eject the PC card adaptor or PC card Slide the MEMORY RELEASE lever in the direction of the arrow as illustrated below.



When the access lamp is flashing Never shake or strike the unit. Do not turn the power off , eject a PC card adaptor/PC card or remove the battery pack. Otherwise, the image data breakdown may occur.

# Using the memory card slot – introduction

## Selecting the image quality mode

You can select one of three image quality modes in still picture recording. If you do not make any selection, the unit automatically records in SUPER FINE mode. (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right

- (1) Set the POWEK switch to MEMONY. Make sure that the BOOK KHOOLD SEC (unlock) position.

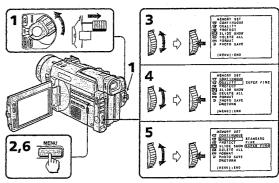
  (2) Press MENU to display the menu.

  (3) Turn the control dial to select 日, then press the dial.

  (4) Turn the control dial to select QUALITY, then press the dial.

  (5) Turn the control dial to select desired image quality, then press the dial.

  (6) Press MENU to erase the menu display.



Setting image quanty		
Setting	Meaning	
SUPER FINE (SFN)	This is the highest image quality in this camcorder. The number of still images you can record is less than FINE. The image is compressed to about 1/4.	
FINE (FIN)	Use this mode when you want to record high quality images. The image is compressed to about 1/6.	
STANDARD (STD)	This is the standard image quality. The image is compressed to about 1/10.	

#### Using the memory card slot – introduction

#### The difference in image quality mode

A recorded image is compressed in JPEG format before stored into memory. The memory capacity allotted to each image varies depending on the selected quality mode. Details are shown in the table below. (The number of pixel is 640 x 84) regardless of image quality mode. Data volume before compression is about 600 KB.)

image quality mode	Memory capacity	
SUPER FINE	About 150 KB	
FINE	About 100 KB	
STANDARD	About 60 KB	

Approximate numbers of images you can record on a memory stick (4 MB) The number of images you can record is different depending on which image q you select and the complexity of the subject. SUPER FINE (SFN) about 20 to 22 images FINE (FIN) about 39 to 44 images STANDARD (STD) about 66 to 75 images

Note In some cases, changing image quality mode may not affect the image quality, depending on the types of images you are shooting.

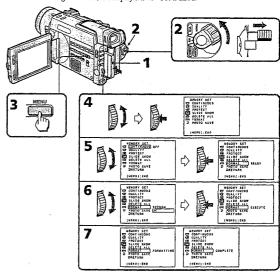
mory card slot – introduction

### Formatting (initializing) a memory stick or a PC card

- (1) When you format a memory stick, insert a PC card adaptor (with a memory stick inside) into the memory card slot. When you format a PC card, insert the card into the memory card slot.

  (2) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right

- (a) Set the FVWER switch to MEMORY. Make sure that the lock knob is set to the r (unlock) position.
   (3) Press MENU to display the menu.
   (4) Turn the control dial to select EORMAT, then press the dial.
   (5) Turn the control dial again to select FOK, then press the dial. The display shows "EXECUTE," then press the dial again.
   (7) The display shows "FORMATTING," and formatting procedure begins. When formatting is finished, the display shows "COMPLETE."



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### Using the memory card slot —introduction

- Notes on formatting

  Formatting erases all information on the memory stick or PC card, including the protected image data. Check the contents of the memory stick or PC card before formatting.

  Be sure that the battery is fully charged when formatting a memory stick or PC card. Formatting takes about three minutes maximum.

  Do not turn the POWER switch or press any button while the display shows "FORMATTING."

# Recording an image from a mini DVCAM tape as a still image

This camcorder can read moving picture data recorded on a mini DVCAM tape and record it as a still image on a memory stick or a PC card. The unit can also take in moving picture data through the input connector and record it as a still image on a memory stick or a PC card.

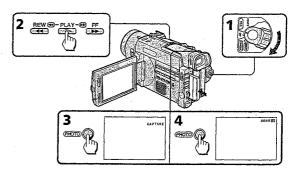
#### Before operation

- Insert a recorded mini DVCAM tape.
   Insert the PC card adaptor (with a memory stick inside) or a PC card into the unit.
- (1) Set the POWER switch to VTR.
- (2) Press P. The picture recorded on the mini DVCAM tape is played back.

  (3) Keep pressing PHOTO lightly until a picture from the mini DVCAM tape freezes.

  "CAPTURE" appears on the LCD screen or in the viewfinder. Recording does not
- start yet.

  (4) Press PHOTO deeper. The image displayed on the screen will be recorded on a memory stick or a PC card. The recording is complete when the bar scroll indicator disappears.



When the access lamp is flashing
Never shake or strike the unit. As well do not turn the power off, eject a PC card adaptor/PC
card or remove the battery pack. Otherwise, the image data breakdown may occur.

card

# ecording an image from a mini DVCAM tape as a still in

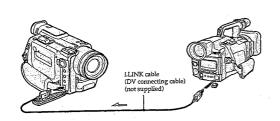
Recording a still image from a mini DVCAM tape right after turning on the power Saving the data may take a little more time than usual. This is not a malfunction.

Sound recorded on a mini DVCAM tape
You cannot record the audio from a mini DVCAM tape.

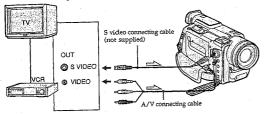
About titles recorded on the mini DVCAM tape
You cannot record titles. The title is not displayed during recording.

### Recording a still image from other equipment

When recording the image through the B DV IN/OUT jack



rding the image through the AUDIO/VIDEO jack



- Set the POWER switch to VTR and set DISPLAY to LCD in the menu system.
   Play back the recorded tape, or turn the TV on to see the desired program.
   Follow the steps 3 and 4 on page 96.

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# Copying still images from a mini DVCAM tape – photo save

When the access lamp is flashing Never shake or strike the unit. As well do not turn the power off, eject a PC card adaptor/PC card or remove the battery pack. Otherwise, the image data breakdown may occur.

To record all the images recorded on the mini DVCAM tape Rewind the tape all the way and start copying.

When you change memory sticks in the middle of copying
The unit resumes copying from the last image recorded on the previous memory stick.

Memory card slot operation:

## Copying still images from a mini DVCAM tape – photo save

Using the search function, you can automatically take in only the still images from mini DVCAM tapes and record them on a memory stick or a PC card in sequence.

Before operation
• Insert a recorded mini DVCAM tape and rewind the tape.
• Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

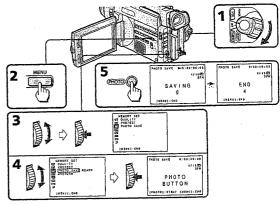
- (1) Set the POWER switch to VTR.

  (2) Press MENU to display the menu.

  (3) Turn the control dial to select [], then press the dial.

  (4) Turn the control dial to select PHOTO SAVE, then press the dial. "PHOTO BUTTON" appears on the LCD screen or in the viewfinder.

  (5) Press PHOTO deeper. The still image from the mini DVCAM tape is recorded on a memory stick or PC card. The number of still images copied is displayed. "END" is displayed when copying is completed.



To cancel copying Press MENU to stop copy

When the memory of the memory stick or PC card is full "MEMORY FULL" appears on the screen, and the copying stops. Insert anothe, stick or PC card and repeat the procedure from step 1.

# Recording still images on memory sticks or PC cards – memory photo recording

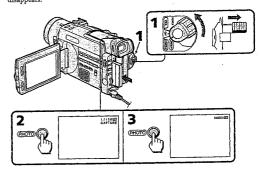
You can record still images with all the pixels (progressive) on a memory stick or an optional PC card.

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the
- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (unlock) position.

  (2) Keep pressing PHOTO lightly. A picture freezes and "CAPTURE" appears on the LCD screen or in the viewfinder. Recording does not start yet.

  (3) Press PHOTO deeper. The image displayed on the screen will be recorded on a memory stick or PC card. The recording is complete when the bar scroll indicator disappears.



When the POWER switch is set to MEMORY

The following functions do not work: digital zoom (more than 12x), wide TV mode, digital effect, picture effect, title.

When you are recording a still image You can neither turn off the power nor press PHOTO.

When you press the PHOTO button on the Remote Commander The camcorder immediately records the image that is on the screen when you press the

When using a video light (not supplied) or similar equip intelligent accessory shoe

intelligent accessory snoe
Recording an image on a memory stick or PC card may result in a temporary power
shortage in the accessory shoe, causing the video light to go out. This is not a malfunction.

# Recording still images on memory sticks or PC cards —memory photo recording

### Recording images continuously

You can shoot continuously by selecting one of two modes described below

Continuous mode [a] You can record from 2 to 4 pictures continuously.

Multi screen mode [b]
You can record 9 still pictures continuously on a single page.





Note on the video flash light You cannot use the video flash light (not supplied) during continuous or multi screen mode

Recording still images on memory sticks or PC cards —memory photo recording

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (1) Set the POWER switch to MIDMOURT. Make sure that the ACA MIDD (unlock) position.

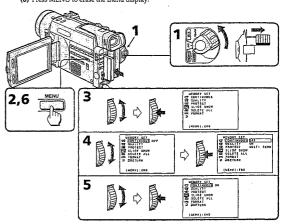
  (2) Press MENU to display the menu.

  (3) Turn the control dial to select EQ, then press the dial.

  (4) Turn the control dial to select CONTINUOUS, then press the dial.

  (5) Turn the control dial to select the desired setting, then press the dial.

- (6) Press MENU to erase the menu display.



#### Settings of continuous shooting

Setting	Meaning (indicator on the screen)
OFF	The unit shoots one image at a time. (no indicator)
ON	The unit shoots 2 to 4 still images at about 0.8 sec intervals. ( 🚱)
MULTI SCRN	The unit shoots 9 still images at about 0.3 sec intervals and displays the images on a single page divided into 9 boxes. ( 国 )

The number of images in continuous shooting
The number of images you can shoot continuously varies depending on the image quality
mode.

mode.
SUPER FINE: 2 images
FINE: 3 images
STANDARD: 4 images

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# Viewing a still picture – memory photo playback

You can play back still images recorded on a memory stick or PC card. You can also play back 6 images at a time by selecting the index screen.

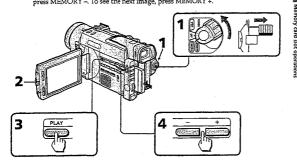
Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (unlock) position.

  (2) While pressing OPEN, open the LCD panel.

  (3) Press MEMORY PLAY. The last recorded image is displayed.

  (4) Press MEMORY +/- to select the desired still image. To see the previous image, press MEMORY -. To see the next image, press MEMORY +.

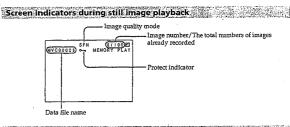


To stop memory photo playback
Press MEMORY PLAY again. Otherwise, the image through the lens will not appear on the screen.

- To play back recorded images on a TV screen
   Connect this camcorder to the TV with the supplied A/V connecting cable before
- operation.

   When operating memory photo playback on a TV or the LCD screen, the image quality may appear to have deteriorated. This is not a malfunction. The image data is as good as
- Turn the audio volume of the TV down before operation, or there may be noise (howling) coming from the TV speakers.





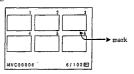
### Playing back 6 recorded images at a time (index screen)

You can play back 6 recorded images at a time. This function is especially useful when searching for a particular image.



Press MEMORY INDEX.

A red ▶ mark appears above the image that is displayed before changing to index screen



- To display the following 6 images, keep pressing MEMORY + To display the previous 6 images, keep pressing MEMORY --.

To return to the normal playback screen (single screen)
Press MEMORY +/- to move the ▶ mark to the image you want to display on full screen, then press MEMORY PLAY.

#### Viewing a still picture - memory photo playback

When displaying the index screen, the number appears above each image. This indicates the recording order on the memory stick or PC card. These numbers are different from the data file names.

Files modified with personal computers
Those files cannot be displayed on the index screen. Image files shot with other equipment cannot be displayed on the index screen either.

The image quality mode indicator
The indicator may show a different mode in which you recorded. This is not a malfunction.
The indicator shows the volume of the data file. For instance, if the volume of SFN image is small enough, it may be displayed as FIN or STD.

### Viewing the recorded images using a personal computer

The image data recorded with this camcorder is compressed in the JPEG format. If your personal computer has an application software that allows you to see JPEG images, you can see images recorded on a memory stick or PC card on a computer screen. For detailed instructions on operation, refer to the operating instruction supplied with the application

### Examples of recommended OS/application software

- OS

  •Windows 95

  •Windows NT3.51 or newer versions, etc.
  Application

  •Microsoft Internet Explorer, etc.

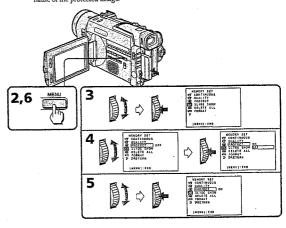
- Notes
   For MacIntosh, you can use the floppy disk recorded with this camcorder using the PC Exchange with Mac OS system 7.5 or higher. A viewing application for MacIntosh is also necessary for viewing images.
   When you see images recorded with the camcorder on a personal computer, the display may show lines on the edge of the screen, depending on the status of video input signals at the moment. This is not a malfunction.

### Preventing accidental erasure — PROTECT

To prevent accidental erasure of important images, you can protect selected image

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Display the image you want to protect.
  (2) Press MENU to display the menu.
  (3) Turn the control dial to select [7], then press the dial.
  (4) Turn the control dial to select PROTECT, then press the dial.
  (5) Turn the control dial to select ON, then press the dial.
  (6) Press MENU to erase the menu. The "0-" mark is displayed beside the data file name of the protected image.



# To cancel protection of the image Select OFF in step 5, then press the control dial.

Note Formatting erases all information on the memory stick or PC card, including the protected image data. Check the contents of the memory stick or PC card before formatting.

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card slot

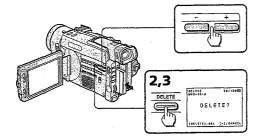
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### Deleting images

## Deleting selected image

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit

- (1) Display the image you want to erase.
  (2) Press MEMORY DELETE. "DELETE?" appears on the LCD screen.
  (3) Press MEMORY DELETE again. The selected image is deleted.



### To cancel deleting an image

Press MEMORY - in step 3

### To delete an image displayed on the index screen

indicator to the desired image and follow steps 2 and 3.

• To delete protected image, cancel their protection first.
• Once you delete an image, you cannot restore it. Check the images to delete carefully before deleting them.

# Deleting images

### Erasing all the images

You can delete all the unprotected images in a memory stick or PC card.

Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right (urlock) position.

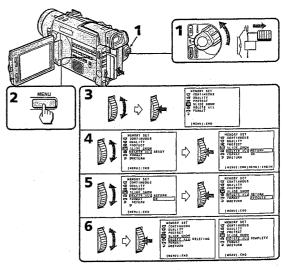
  (2) Press MENU to display the menu.

  (3) Turn the control dial to select ELL, then press the dial.

  (4) Turn the control dial to select ELETE ALL, then press the dial.

  (5) Turn the control dial to select OK, then press the dial. "OK" changes to

- "EXECUTE."
- (6) Turn the control dial to select EXECUTE, then press the dial. "DELETING" appears on the LCD screen. When all the unprotected images are deleted, "COMPLETE" is displayed.



#### **Deleting images**

To cancel deleting all the images on the memory stick or PC card Select  $\Rightarrow$  RETURN in step 4, then press the control dial.

While "DELETING" appears
Do not turn the POWER switch or press any buttons.

# Copying the image recorded with the memory card slot to mini DVCAM tapes

You can copy still images or titles recorded with the memory card slot and record them to a mini  $\ensuremath{\mathsf{DVCAM}}$  tape.

- Before operation
   Insert a mini DVCAM tape for recording.
   Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.
- (1) Set the POWER switch to VTR.

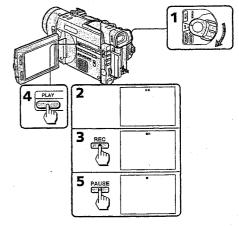
  (2) Using the tape transport buttons, search a point where you want to record the desired still image. Set the mini DVCAM tape to playback pause mode.

  (3) Press © REC to set the mini DVCAM tape to recording pause mode.

  (4) Play back the still image you want to copy.

  (5) Press II to start recording and press III again to stop.

  (6) If you have more to copy, repeat steps 4 and 5.



## To stop copying in the middle $\operatorname{Press} \square.$

During copying
You cannot operate the following buttons:
MEMORY PLAY, MEMORY INDEX, MEMORY DELETE, MEMORY +, and MEMORY --

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# Copying the image recorded with the memory card slot to mini DVCAM tapes

If you press the EDITSEARCH buttons during pause mode Memory playback stops.

If you press the DISPLAY button in Standby or Recording mode
You can see memory playback and the file name indicators in addition to the indicators
pertinent to mini DVCAM tapes, such as the time code indicator.

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# Playing back images in a continuous loop —SLIDE SHOW

You can automatically play back images in sequence. This function is useful especially when checking the recorded images or during a presentation.

Before operation
Insert the PC card adaptor (with a memory stick inside) or a PC card to the unit.

- (1) Set the POWER switch to MEMORY. Make sure that the lock knob is set to the right

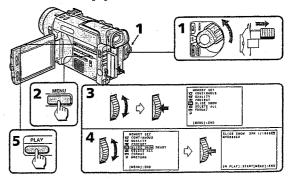
- (unlock) position.

  (2) Press MENU to display the menu.

  (3) Turn the control dial to select EL, then press the dial.

  (4) Turn the control dial to select SLIDE SHOW, then press the dial.

  (5) Press MEMORY PLAY. The unit plays back the images recorded on a memory stick or PC card in sequence. When all the images have been played back, the display shows the first image again and the slide show ends.



To cancel the slide show

To pause during a slide show Press MEMORY PLAY to set it in a pause.

To start the slide show from a particular image Select the desired image using MEMORY +/- buttons before step 2.

To view the recorded images on TV Connect this camcorder to a TV with the supplied A/V connecting cable before operation.

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#### Playing back images in a continuous loop - SLIDE SHOW

Note on the slide show You cannot make copy of the slide show on a mini DVCAM tape.

If you change the memory stick or PC card during operation
The slide show does not operate. If you change the memory stick or PC card, be sure to
follow the steps again from the beginning.

Additional information

### Compatibility of DVCAM and DV formats

DVCAM format is developed as a more reliable and higher end format than consumer DV format. Here explained are the differences, compatibility, and limitations on editing about DVCAM and DV formats.

#### Differences between DVCAM and DV formats

ltem	DVCAM	DV	
Track pitch	15 µm	10 μm	
Audio sampling frequency	12 bit: 32 kHz 16 bit: 48 kHz	12 bit: 32 kHz 16 bit: 32 kHz, 44.1 kHz, 48 kHz	
Audio recording mode 1)	Lock mode	Unlock mode	
Time code	Drop frame system or Non-drop frame system (SMPTE time code)	Drop frame system only	

<sup>17</sup>There are two modes for audio recording, lock mode and unlock mode. In lock mode, the sampling frequencies of audio and video are synchronized. In unlock mode, which consumer DV format adopts, the two sampling frequencies are independent. Therefore, lock mode is more effective than unlock mode in digital processing and smooth transition during audio editing.

#### Mini DVCAM and mini DV cassettes

Both mini DVCAM and mini DV cassettes can be used on mini DVCAM or mini DV video equipment. The recording format of picture is defined according to recorder's format as described below.

Recorder's format	Cassette's format	Recording format
DVCAM	DVCAM	DVCAM
	DV	DVCAM
DV	DVCAM ·	DV
	DV	DV

This digital camcorder complies with DVCAM format. Though mini DV cassettes can be used for recording, we recommend you to use mini DVCAM cassettes to get the most out of high reliability of DVCAM format. The recording time of mini DV cassettes is 2/9 shorter than that indicated on the mini DV cassettes.

Compatibility on playback Some tapes cannot be played back on mini DVCAM or mini DV video equipment. On DV video equipment On DVCAM video equipment DV-formatted Can be played back Can be played back (only when recorded in SP mode) DVCAM-formatted Some equipments may be Can be played back able to play back

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### Compatibility of DVCAM and DV formats

Compatibility on editing using DV connectors

When this digital camcorder is connected to other mini DVCAM or mini DV video equipment using DV connectors, the recording format of edited tapes is defined according to recorder's format as described below.

Source tape	Player's format	Recorder's format	Recording format
DVCAM-formatted 2)3)	DVCAM	DVCAM	DVCAM
DVCAM-formatted	DVCAM	DV	DV +)
DVCAM-formatted 2)	DV 5)	DVCAM	DVCAM?
DVCAM-formatted	DV 5)	DV	DV 4)
DV-formatted 60	DVCAM	DVCAM	DVCAM 1)
DV-formatted 6)	DVCAM	DV	DV
DV-formatted	DV	DVCAM	DVCAM 1)
DV-formatted	DV	DV	DV

10 When using the mini DVCAM video equipment to carry out DV dubbing of a tape recorded in DV format, the tape produced will be in DVCAM format as follows:

- Audio recording mode will be unlock mode.

- The time code format will be partly maladjusted. (There will be no effect on the recorded picture except in certain case.)

20 If the tape is to be dubbed is DVCAM formatted tape as in 1), the tape produced will be in DVCAM format as follows:

- Audio recording mode will be unlock mode.

- The time code format will be partly maladjusted.

30 Depending on signal conditions of the source tape, you may not be able to edit the tape using the DV connectors.

31 Audio recording mode of the edited tape is lock mode.

32 Some mini DV video equipment may be able to play back a DVCAM-formatted tape.

23 Even if the tape is played back, contents of the playback cannot be guaranteed.

24 DV-formatted tapes recorded in SP mode only can be used as source tapes.

32 Depending on model of video equipment, you may not be able to edit.

### Limitations on editing

Limitations on editing
You will find the following limitations when editing.

Due to the difference of a track pitch, you cannot record or edit on DV-formatted tapes using mini DVCAM video equipment.

Depending on signal conditions, you may not be able to record or edit on DVCAM-formatted tapes.

In these cases, do the following:

Additional equilibrium of the party of the properties of

 Edit using audio/video jacks.
 Dub a DV-formatted tape using audio/video jacks, then use the dubbed tape as a source tape.

### Selecting cassette types

You can use the [DECAM], mini DVCAM cassette only, You cannot use any other INDV, III 8 mm, HIII HIS, WIS VHS, SWIS S-VHS, WISE VHSC, SWISH S-VHSC, III Betamax or WIEE ED Betamax cassette.

Usable cassettes and playback modes

ED Beamax cassene.

We recommend mini DVCAM cassette with cassette memory.

There are two types of mini DVCAM cassettes: with cassette memory. The IC memory is mounted on this type of mini DVCAM cassettes. This cancorder can read and write data such as dates of recording or titles, etc. to this memory. The functions using the cassette memory require successive signals recorded on the tape. If the tape has a blank portion in the beginning or between the recorded portions, a title may not be displayed properly or the search functions may not work properly. Not to make any blank portion on the tape, operate the following.

Press END SEARCH to go to the end of the recorded portion before you begin the next recording if you operate the following:

—you have played back the tape in the VTR mode.
—you have used the Edit Search function.

If there is a blank portion or discontinuous signal on your tape, re-record from the beginning to the end of the tape concerning above.

If there is a blank portion or discontinuous signal on your tape, re-record from the beginning to the end of the tape concerning above.

The same result may occur when you record using a digital video camera recorder without a cassette memory function on a tape recorded by one with the cassette memory function. Tapes with cassette memory have CJII (Cassette Memory) mark. Sony recommends that you use a tape having CJII mark to enjoy this camcorder fully.

### When you play back

### Copyright signal

When playing back
When playing back
Using any other video camera recorder, you cannot record on a tape that has recorded a copyright control signals for copyright protection of software which is played back in this cancorder.

When recording
Using this amcorder, you cannot record software that has recorded a copyright control signals for copyright protection of software. "COPY INHIBIT" appears on the LCD screen, in the viewfinder or on the TV screen if you try to record such software.

#### Audio mode

Audio Mode

F552K (12-bit) mode: The original sound can be recorded in stereo 1, and the new sound in stereo 2 in 32 kHz. The balance between stereo 1 and stereo 2 can be adjusted by selecting AUDIO MIX in the menu system during playback. Both sounds can be played back. F548K (16-bit) mode: A new sound cannot be recorded but the original sound can be recorded in high quality. Moreover, it can also play back sound recorded in 32 kHz, 44.1 kHz or 48 kHz. When playing back a tape recorded in the F548K (16-bit) mode, 48K indicator appears on the LCD screen or in the viewfinder.

## Notes on the mini DVCAM cassette

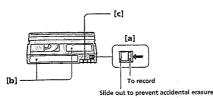
## To prevent accidental erasure

ut the protect tab on the cassette so that the red portion is visible. [a]

When affixing a label on the mini DVCAM cassette
Be sure to affix a label only on the locations as illustrated below so as not to cause malfunction of the camcorder. [b]

### After using the mini DVCAM cassette

Rewind the tape to the beginning, put the case position. sette in its case, and store it in an upright



Note on gold-plated connector

If the gold-plated connector of mini DVCAM cassettes is dirty or dusty, you may not operate the function using cassette memory. Clean up the gold-plated connector with cotton-wool swab, about every 10 times ejection of a cassette. [c]

# Charging the vanadium-lithium battery in the

Your camcorder is supplied with a vanadium-lithium battery installed so as to retain the date and time, etc., regardless of the setting of the POWER switch. The vanadium-lithium battery is always charged as long as you are using the camcorder. The battery, however, will get discharged gradually if you do not use the camcorder. It will be completely discharged in about a year if you do not use the camcorder at all. Even if the vanadium-lithium battery is not charged, it will not affect the camcorder operation. To retain the date and time, etc., charge the battery if the battery is discharged. The following are charging methods:

Connect the camcorder to house current using the supplied AC power adaptor, and leave the camcorder with the POWER switch turned off for more than 24 hours.

Or install the fully charged battery pack in the camcorder, and leave the camcorder with the POWER switch turned off for more than 24 hours.

### tting the date and time

## To correct the date and time setting

Repeat steps 2 to 5.

If you do not set the date and time "———" is recorded on the tape and "80.1.1" on the memory stick or PC card

vear indicator changes as follows: 1998 → 1999 → . . 2001 . . → 2029

Note on the time indicator
The internal clock of this camcorder operates on a 12-hour cycle (DSR-PD100) or on a 24-hour cycle (DSR-PD100P).

• 12:00 AM stands for midnight.

• 12:00 PM stands for noor

### Simple setting of clock by time difference

You can easily set the clock for a local time by a time difference in the menu system.

You can easily set the clock for a local time by a time difference in the meru system. You can also reset the clock simply by setting the time difference to zero.

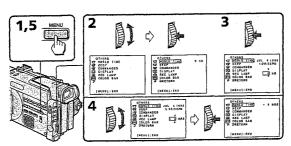
(1) While the camcorder is in Standby mode, press MENU to display the menu.

(2) Turn the control dial to select £0, then press the dial.

(3) Turn the control dial to select WORLD TIME, then press the dial.

(4) Turn the control dial to set a time difference, and press the dial. The hour of clock changes in relation to a time difference which you set.

(5) Press MENU to erase the menu display.



Note on WORLD TIME

If the clock is not set, WORLD TIME does not work.

## Resetting the date and time

The date and time are set at the factory. Set the time according to the local time in your country. If you do not use the camcorder for about a year, the date and time settings may be released (bars may appear) because the variadium-lithium battery installed in the camcorder will have been discharged. In this case, first charge the vanadium-lithium battery, then reset the date and time.

(1) Set the POWER switch to CAMERA.

(1) Set the POWER SWINCH OF CAMBEAN.

(2) Press MENU to display the menu.

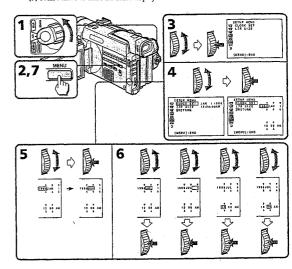
(3) Turn the control dial to select (1), then press the dial.

(4) Turn the control dial to select (1), then press the dial.

(5) Turn the control dial to adjust the year, then press the dial.

(6) Set the month, day, hour and minutes by turning and pressing the control dial.

(7) Press MENU to erase the menu display.



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## Tips for using the battery pack

This section shows you how you can get the most out of your battery pack.

### Preparing the battery pack

Always carry additional batteries
Have sufficient battery pack power to do 2 to 3 times as much recording as you have

### Battery life is shorter in a cold environment

Battery efficiency is decreased, and the battery will be used up more quickly, if you are recording in a cold environment.

### To save battery power

Io SaVe Dattery power

Do not leave the camcorder in Standby mode when not recording to save the battery power.

A smooth transition between scenes can be made even if recording is stopped and started again. While you are positioning the subject, selecting an angle, or looking at the LCD screen or through the viewfinder, the lens moves automatically and the battery is used. The battery is also used when a tape is inserted or removed.

### When to replace the battery pack

While you are using your camcorder, the remaining battery indicator on the LCD screen or in the viewfinder decreases gradually as battery power is used up. The remaining time in minutes also appears.

## 

When the remaining battery indicator reaches the lowest point, the © indicator appears and starts flashing on the LCD screen or in the viewfinder. When the © Indicator on the LCD screen or in the viewfinder changes from slow flashing to rapid flashing while you are recording, set the PCWER switch to OFF on the camcorder and replace the battery pack. Leave the tape in the camcorder to obtain a smooth transition between scenes after the battery pack has been replaced.

### Notes on the rechargeable battery pack

### Caution

Never leave the battery pack in temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight.

The battery pack heats up. During charging or recording, the battery pack heats up. This is caused by energy that has been generated and a chemical change that has occurred inside the battery pack. This is not cause for concern, and is normal.

### Battery pack care

- Battery pack care

  \*Remove the battery pack from the camcorder after using it, and keep it in a cool place.

  When the battery pack is installed to the camcorder, a small amount of current flows to the camcorder even if the POWER switch is set to OFF. This shortens battery life.

  The battery pack is always discharging even when it is not in use after charging. Therefore, you should charge the battery pack right before using the camcorder.

### Tips for using the battery pack

### The life of the battery pack

If the battery indicator flashes rapidly just after turning on the camcorder with a fully charged battery pack, the battery pack should be replaced with a new fully charged one

### Charging temperature

You should charge batteries at temperatures from 10°C to 30°C (from 50°F to 86°F). Lower temperatures require a longer charging time.

### Notes on the "InfoLITHIUM" Battery Pack

### What is the "InfoLITHIUM" battery pack

WHEN IS THE "INTOLITHIUM" battery pack
The "InfoLITHIUM" battery pack is a lithium battery pack which can exchange data with
compatible video equipment about its battery consumption.
When you use this battery pack with video equipment having the (1) InfoRMIN mark, the
video equipment will indicate the remaining battery time in minutes."
The indication may not be accurate depending on the condition and environment which
the equipment is used under.

### How the battery consumption is displayed

How the battery consumption is displayed
The power consumption of the camcorder changes depending on its use, such as whether
the LCD panel is used or not, how the autofocusing is working on or not.
While checking the condition of the camcorder, the "InfoLITHIUM" battery pack measures
the battery consumption and calculates the remaining battery power. If the condition
changes drastically, the remaining battery indication may suddenly decrease or increase by
more than 2 minutes.
Even if 5 to 10 minutes is indicated as the battery remaining time on the LCD screen or in the
viewfinder, the CD indicator may also flash under some conditions.

### To obtain more accurate remaining battery indication

To obtain more accurate remaining battery indication

Set the cancorder to recording standby mode and point towards a stationary object. Do not move the camcorder for 30 seconds or more.

If the indication seems incorrect, use up the battery and then recharge it fully (Full charges). Note that if you have used the battery in a hot or cold environment for long time, or you have repeated charging many times, the battery may not be able to show the correct time even after being fully charged.

After you have used the "InfoLITHIUM" battery pack with an equipment not having the mountains mark, make sure that you use up the battery on the equipment having the metalline mark and then recharge fully.

## Tips for using the battery pack

Why the remaining battery indication does not match the continuous recording time in the operating instruction. The recording time is affected by the environmental temperature and conditions. The recording time is affected by the environmental temperature and conditions recording time becomes very short in a cold environment. The continuous recording tin the operating instruction is measured under the condition of using a fully charged (or normal charged?) battery pack in  $25^{\circ}$  C/O  $^{\circ}$  F). As the environmental temperature and condition are different when you actually use the camcorder, the remaining battery time not same as the continuous recording time in the operating instruction.

1) Full charge: Charging for about 1 hour after the charge lamp of the AC power adaptor goes

<sup>2)</sup> Normal charge: Charging just until the charge lamp of the AC power adaptor goes off.

### Notes on charging

A brand-new battery pack
A brand-new battery pack is not charged. Before using the battery pack, charge it completely.

Recharge the battery pack whenever you like
You do not have to discharge it before recharging. If you charged the battery pack fully but
you did not use it for a long time, it becomes discharged. Then recharge the battery pack
before use.

## Notes on the terminals

If the terminals (metal parts on the back) are not clean, the battery charge duration

When the terminals are not clean or when the battery pack has not been used for a long time, repeatedly install and remove the battery pack a few times. This improves the contact condition. Also, wipe the +, - and C terminals with a soft cloth or paper.

### Be sure to observe the following

- Keep the battery pack away from fire.
   Keep the battery pack dry.
   Do not open not ry to disassemble the battery pack.
   Do not expose the battery pack to any mechanical shock.

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### Maintenance information and precautions

## Moisture condensation

If the camcorder is brought directly from a cold place to a warm place, moisture may condense inside the camcorder, on the surface of the tape, on the lens, on the head, or on the floppy disk. In this condition, the tape may stick to the head drum and be damaged or the camcorder may not operate correctly. To prevent possible damage under these circumstances, the camcorder is furnished with moisture sensors. Take the following

Inside the camcorder

If there is moisture inside the camcorder, the beep sounds and the ℍ indicator flashes. Eject the cassette or the PC card adaptor immediately. If this happens, none of the function excep cassette ejection will work. Open the cassette compariment, turn off the camcorder, and leave it about 1 hour. When ≜ indicator flashes at the same time, the cassette is inserted in the camcorder. Eject the cassette, turn off the camcorder, and leave also the cassette about 1 hour.

On the lens

If moisture condenses on the lens, no indicator appears, but the picture becomes dim. Turn off the power and do not use the camcorder for about 1 hour.

How to prevent moisture condensation
When bringing the camcorder from a cold place to a warm place, put the camcorder in a plastic bag and allow it to adapt to room conditions over a period of time.
(1) Be sure to tightly seal the plastic bag containing the carcorder.

(2) Remove the bag when the air temperature inside it has reached the temperature surrounding it (after about 1 hour).

## Video head cleaning

- To ensure normal recording and clear pictures, clean the video heads.

  The video heads may be dirty when:

  mosaic-pattern noise appears on the playback picture
  playback pictures do not move
  playback pictures are hardly visible
  playback pictures are hardly visible
  playback pictures do not appear
  the © indicator and \*@Z CLEANING CASSETTE" message appear one after another or the © indicator flashes on the LCD screen or in the viewfinder.









If [a] or [b] happens, clean the video heads with the Sony DVM12CL cleaning cassette (not supplied). Check the picture and if the above problem persists, repeat the cleaning. (Do not repeat cleaning more than 5 times in one session.)

If the DVM12CL cleaning cassette (not supplied) is not available in your area, consult your

## Precautions

- Camcorder operation
- Camcorder operation

  Operate the camcorder on 7.2 V (battery pack) or 8.4 V (AC power adaptor).

  Should any solid object or liquid get inside the casing, unplug the camcorder and have it checked by Sony dealer before operating it any further.

  Avoid rough handling or mechanical shock. Be particularly careful of the lens.

  Keep the POWER switch set to OFF when not using the camcorder.

  Do not wrap up the camcorder and operate it since heat may build up internally.

  Keep the camcorder away from strong magnetic fields or mechanical vibration.

### On handling tapes

Maintenance information and precautions

Do not insert anything in the small holes on the cassette.
 Do not open the tape protect cover or touch the tape.
 Avoid touching or damaging the terminals. To remove dust, clean the terminals with a soft cloth.

### Camcorder care

- Camnorder Care

  \*When the camcorder is not to be used for a long time, disconnect the power source and remove the tape. Periodically turn on the power, operate the camera and player sections and play back a tape for about 3 minutes.

  \*Clean the lens with a soft trush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.

  \*Clean the camcorder body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.

  \*Do not let sand get into the camcorder. When you use the camcorder on a sandy beach or in a dusty place, protect if from the sand or dust. Sand or dust may cause the unit to malfunction, and sometimes this malfunction cannot be repaired.

### Maintenance information and precautions

AC power adaptor
Charging

• Use only an "InfoLITHIUM" type battery pack.

• Place the battery pack on a flat surface without vibration during charging.

• The battery pack will get hot during charging. This is normal.

Others

- Unplug the unit from the wall outlet when not in use for a long time. To disconnect the power cord, pull it out by the plug. Never pull the cord itself.

- Do not operate the unit with a damaged cord or if the unit has been dropped or damaged.

- Do not bend the AC power cord forcibly, or put a heavy object on it. This will damage the cord and may cause a fire or an electrical shock.

- Be sure that nothing metallic comes into contact with the metal parts of the connecting plate. If this happens, a short may occur and the unit may be damaged.

- Allways keep the metal contacts dean.

- Do not assessmible the unit.

- Do not assessmible the unit.

- Do not apply mechanical shock or drop the unit.

- While the unit is in use, particularly during charging, keep it away from AM receivers and video equipment because it will disturb AM reception and video operation.

- The unit becomes warm while in use. This is normal.

- Do not place the unit in locations that are:

Extremely hor or cold, Dusty or dirty, Very humid, Vibrating

Note on dry batteries
To avoid possible damage from battery leakage or corrosion, observe the following.

• Be sure to insert the batteries in the correct direction.

• Dry batteries are not rectargeable.

• Do not use a combination of new and old batteries.

• Do not use different types of batteries.

• The batteries slowly discharge while not in use.

• Do not use a battery that is leaking.

If battery leakage occurred

\*Wipe off the liquid in the battery case carefully before replacing the batteries.

\*If you touch the liquid, wash it off with water.

\*If the liquid get into your eyes, wash your eyes with a lot of water and then consult a definition. If any difficulty should arise, unplug the unit and contact your nearest Sony dealer.

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## Trouble check

If you run into any problem using the camcorder, use the following table to troubleshoot the problem. Should the difficulty persist, disconnect the power source and contact your Sony dealer or local authorized Sony service facility.

Camcorder				
Power				
Symptom	Cause and/or corrective actions			
The power cannot be turned on.	<ul> <li>The battery pack is not installed.</li> <li>Install the battery pack (p. 8)</li> <li>The battery is dead.</li> <li>Use a charged battery pack. (p. 9)</li> <li>The AC power adaptor is not connected to a wall outlet (mains).</li> <li>Connect the AC power adaptor to a wall outlet (mains).</li> <li>(p. 27)</li> </ul>			
The power goes off.	<ul> <li>While being operated in CAMERA mode, the camoorder has been in Standby mode for more than 5 minutes.</li> <li>Set the POWER switch to OFF, then to CAMERA. (p. 13.</li> <li>The battery is dead.</li> <li>Use a charged battery pack. (p. 9)</li> </ul>			
The battery pack is quickly discharged.	The ambient temperature is too low. (p. 120) The battery pack has not been charged fully. Charge the battery pack again. (p. 9) The battery pack is completely dead, and cannot be recharged. Use another battery pack. (p. 26)			
Operation				
Symptom	Cause and/or corrective actions			
START/STOP does not operate.	The tape is stuck to the drum.  Flight the cassette. (p. 12) The tape has run out.  Rewind the tape or use a new one. (p. 23) The POWER switch is not set to CAMERA.  Set it to CAMERA. (p. 13) The tab on the cassette is out (red).  Use a new tape or side the tab. (p. 12)			
The cassette cannot be removed from the holder.	The AC power adaptor is not connected to a wall outlet (mains). Connect the AC power adaptor to a wall outlet (mains). (p. 27) The battery is dead. Use a charged battery pack or the AC power adaptor. (p. 9, 27)			
	<ul> <li>Moisture condensation has occurred.</li> <li>Remove the cassette and leave the camcorder for at least 1 hour. (p. 123)</li> </ul>			
"CLOCK SET" appears when the camcorder is turned on.	Reset the date and time. (p. 118)			
The end search function does not work.	<ul> <li>You did not make a new recording after reinserting the</li> </ul>			

• The tape without cassette memory ejected after recording.

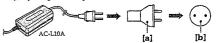
Continued to the next page 127

### Using your camcorder abroad

Each country or area has its own electric and TV color systems. Before using your camcorder abroad, check the following points.

## Power sources

You can use your camcorder in any country or area with the supplied AC power adaptor within 100 V to 240 V AC, 50/60 Hz. Use a commercially available AC plug adaptor [a], if necessary, depending on the design of the wall outlet [b].



## Difference in color systems

DSR-PD100 is an NTSC system-based camcorder. If you want to view the playback picture on a TV, it must be an NTSC system-based TV. DSR-PD100P is a PAL system-based camcorder. If you want to view the playback picture on a TV, it must be a PAL system-based TV. Check the following list.

### NTSC system

N1Sc. system Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

### PAL system

PAL system Australia, Austria, Belgium, Czech Republic, China, Denmark, Finland, Germany, Great Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, etc.

PAL-M system

PAL-N system Argentina, Paraguay, Uruguay

### SECAM system

Bulgaria, France, Guiana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Ukraine, etc.

Operation				
Symptom	Cause and/or corrective actions			
The end search function does not work correctly.	The tape has a blank portion in the middle.			
The tape does not move when a tape transport button is pressed.	The POWER switch is not set to VTR.  Set it to VTR. (p. 23) The tape has run out.  Rewind the tape or use a new one. (p. 23)			
No sound or only a low sound is heard when playing back a tape.	<ul> <li>The volume is turned to the minimum.</li> <li>Open the LCD panel and press VOLUME +. (p. 23)</li> <li>AUDIO MIX is set to ST2 side in the menu system.</li> <li>Adjust AUDIO MIX in the menu system. (p. 87)</li> </ul>			
The new sound added to the recorded tape is not heard.	<ul> <li>AUDIO MIX is set to ST1 side in the menu system.</li> <li>Adjust AUDIO MIX in the menu system. (p. 87)</li> </ul>			
The Steady Shot function does not work.	<ul> <li>STEADYSHOT is set to OFF in the menu system.</li> <li>Set it to ON. (p. 51)</li> </ul>			
The autofocus function does not work.	<ul> <li>Focus is set to the manual mode.</li> <li>Set it to autofocus. (p. 58)</li> <li>Shooting conditions are not suitable for autofocus.</li> <li>Set focus to manual mode to focus manually. (p. 58)</li> </ul>			
The title is not displayed.	<ul> <li>TITLE DSPL is set to OFF in the menu system.</li> <li>→ Set it to ON in the menu system. (p. 31)</li> </ul>			
The title is not recorded.	The tape has no cassette memory.  Use a tape with assette memory. (p. 63)  The cassette memory is full.  Ense another title. (p. 65)  The tape is set to prevent accidental erasure.  Side the protect als so that red portion is not visible. (p. 12)  Nothing is recorded in that position on the tape.  Superimpose the title to the recorded position. (p. 63)			
The cassette label is not recorded.	The tape has no cassette memory. Just a tape with cassette memory. (p. 68) The cassette memory is full. Sirase some titles. (p. 65) The tape is set to prevent accidental erasure. Slide the protect tab so that red portion is not visible. (p. 12)			
Displaying the recorded date, date search function does not work.	<ul> <li>The tape has no cassette memory.</li> <li>→ Use a tape with cassette memory. (p. 73)</li> <li>CM SEARCH is set to OFF in the menu system.</li> <li>→ Set it to ON. (p. 73)</li> </ul>			

## Trouble check

Operation			
Symptom	Cause and/or corrective actions		
The title search function does not work.	The tape has no cassette memory. Use a tape with cassette memory. (p. 75) CM SEARCH is set to OFF in the menu system. Set it to ON. (p. 75) There is no title in the tape. Superimpose the titles. (p. 63)		
CIII indicator does not appear when using a tape with cassette memory.	<ul> <li>The gold-plated connector of the tape is dirty or dusty.</li> <li>→ Clean the gold-plated connector. (p. 117)</li> </ul>		
The date search, title search, or end search does not work correctly.	<ul> <li>The tape has a blank portion between the recorded portions. (p. 116)</li> </ul>		
The click of the shutter does not sound.	<ul> <li>BEEP is set to OFF in the menu system.</li> <li>→ Set it to MELODY or NORMAL. (P. 32)</li> </ul>		
Picture Symptom	Cause and/or corrective actions		
The image on the viewfinder screen is not clear.	<ul> <li>The viewfinder lens is not adjusted.</li> <li>→ Adjust the viewfinder lens. (p. 14)</li> </ul>		
A vertical band appears when a subject such as lights or a candle flame is shot against a dark background.	<ul> <li>The contrast between the subject and background is too high. The camcorder is not malfunctioning.</li> <li>Change locations.</li> </ul>		
The picture is "noisy" or does not appear.	<ul> <li>The video heads may be dirty.</li> <li>Clean the heads using the Sony DVM12CL (not supplied) cleaning cassette. (p. 123)</li> </ul>		
	→ Clean the heads using the Sony DVM12CL (not		
indicator flashes on the LCD screen or in the viewfinder.	→ Clean the heads using the Sony DVM12CL (not		
indicator flashes on the LCD screen or	Clean the heads using the Sony DVM12CL (not supplied) cleaning casette. (p. 123)  The video heads may be dirty. Clean the heads using the Sony DVM12CL (not supplied) cleaning casette. (p. 123)		

Screen or in the viewfunder.

The picture does not appear in the viewfunder.

The LCD panel is open.

Close the LCD panel.

A display such as "C:□□:□□" appears on the LCD screen or in the viewfunder.

The self-diagnosis display function has been activated.

The self-diagnosis display function has been activated.

Check the code and diagnosis the problem by referring to the code chart. (p. 132)

The camcorder is not malfunctioning.

Incorporated fluorescent tube is worn out.
 Please contact your nearest Sony dealer.

Continued to the next page 129

## Trouble check

A vertical band appears when shooting a very bright subject.

The picture does not appear on the LCD screen or in the viewfinder.

### Others Symptom

Cause and/or corrective actions Disconnect the power cord (mains lead) of the AC power adaptor or remove the battery pack, then reconnect it in about 1 minute. Turn the power on. If the functions still do not work, open the LCD panel and press the RESET button beside the speaker using a sharp-pointed object. (If you press the RESET button, all the settings including the date and time return to the default) (p. 136)

The input selector on the VCR is not set correctly.

Set the selector to DV input position. If you use another DVCAM camcorder, set the power switch to VTR.

The camcorder is connected to DVCAM equipment of other than Sony.

Operate normal editing.

Setting program on a blank portion of the tape is attempted. No function works though the power is on.

DV synchro-editing does not function.

- attempted.
   Set the program again on a recorded portion.

Trouble check

### Picture

Symptom	Cause and/or corrective actions
The picture seems to be in flash motion.	<ul> <li>PROG. SCAN is set to ON in the menu system, or the POWER switch is set to MEMORY This is caused by progressive scanning (display with all the pixels) and is not a malfunction.</li> </ul>
Remaining tape indicator is not displayed.	<ul> <li>The STS REMAIN in the menu system is set to AUTO.</li> <li>If the remaining tape indicator is always displayed, set it to ON.</li> </ul>
The memory card slot does not function.	The battery is dead.  Use a charged battery pack or the AC power adaptor. The PC card adaptor or PC and is not inserted correctly. Eject the PC card adaptor or PC card and insert it correctly. The POWER switch is set to CAMERA. Seit to MEMORY or VTR.
Recording does not function.	The PC card adaptor or PC card has already been recorded to its full capacity.  Brase unnecessary images and record again. The memory stick or PC card is not inserted.  Insert the memory stick or PC card.  Unusable PC card is inserted.  Unformatted the memory stick or PC card.  Format the memory stick or PC card.  Format the memory stick or PC card.  The protect switch on the memory stick is set to LOCK position.  Sidde the protect switch to write.
The image cannot be deleted.	<ul> <li>The image is protected.</li> <li>→ Cancel the protect.</li> </ul>

### Others

Symptom	Cause and /or corrective actions			
While editing using the i.LINK cable (DV connecting cable), recording picture cannot be monitored.	<ul> <li>Remove the i.LINK cable (DV connecting cable), an connect it again.</li> </ul>			
The camcorder becomes warm.	<ul> <li>If the power of the camcorder is on for a long time, it becomes warm, which is not malfunction.</li> </ul>			
The supplied Remote Commander does not work.	<ul> <li>COMMANDER is set to OFF in the menu system.</li> <li>Set it to ON.</li> <li>Something is blocking the infrared rays.</li> <li>Remove the obstacle</li> <li>The battery is not inserted with the correct polarity.</li> </ul>			

The battery is not inserted with the correct polarity.
 Insert the battery with the correct polarity (p. 140)
 The batteries are dead.
 Insert new ones. (p. 140)

130

## Self-diagnosis function

The camcorder has a self-diagnosis display. This function displays the camcorder's condition with five digits (a combination of a letter and figures) on the LCD screen or in the viewfinder. If this occurs, check the following code chart. The five-digit display informs you of the camcorder's current condition. The last two digits (indicated by CID) will differ depending on the state of the camcorder.



Self-diagnosis display

•C:□□:□□

You can service the camcorder

yourself. •E:□□:□□

Contact your Sony dealer or local authorized Sony facility.

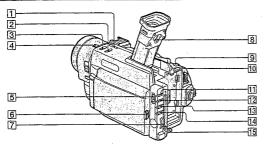
Five-digit display	Cause and/or corrective actions
C:04:DD	<ul> <li>The battery other than "InfoLITHIUM" is used.</li> <li>→ Use the "InfoLITHIUM" battery (p. 121)</li> </ul>
C:21:00	Moisture condensation has occurred.     Remove the cassette and leave the camcorder for at least 1 hour (p. 123).
C:22:□□	<ul> <li>The video heads are dirty.</li> <li>Clean the heads using the Sony DVM12CL cleaning cassette (not supplied). (p. 123)</li> </ul>
C31:00 C32:00	<ul> <li>A serviceable situation not mentioned above has occurred.</li> <li>Remove the cassette and insert it again, then operate the camcorder. (p. 12)</li> <li>Disconnect the power cord (mains lead) of the AC power adaptor or remove the battery pack. After reconnecting the power source, operate the camcorder.</li> </ul>
E:61:00 E:62:00	<ul> <li>A camcorder malfunction which you cannot service has occurred.</li> <li>Contact your Sony dealer or local authorized Sony service facility and inform hem of the five dicits. (example: E:61:10)</li> </ul>

If you are unable to resolve the problem, contact your Sony dealer or local authorized Sony service facility.

1-32



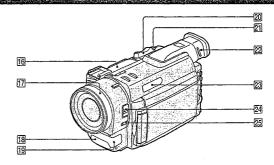
## Identifying the parts



- 1 EDITSEARCH buttons (p. 22, 25)
- 2 BACK LIGHT button (p. 38)
- 3 FADER button (p. 36)
- 4 ND FILTER button (p. 49)
- 5 AUTO LOCK selector (p. 44)
- 6 OPEN switch (p. 23)
- 7 Control dial (p. 28)

- 8 Viewfinder lens adjustment lever (p. 14)
- 9 PHOTO button (p. 33)
- 10 | BATT (battery) RELEASE button (p. 11)
- SHUTTER SPEED button (p. 45)
- [2] WHT BAL (white balance) button (p. 46)
- 13 PROGRAM AE button (p. 55)
- 14 EXPOSURE button (p. 44)
- 15 Memory card slot (p. 88)

## dentifying the pa



- Tape transport buttons (p. 23)

  ☐ STOP (stop)

  ← REW (rewind)

  ▷ PLAY (playback)

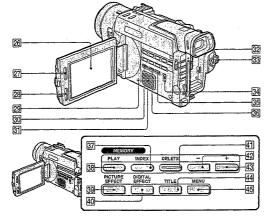
  ▶ FF (fast-forward)

  II PAUSE (pause)

   REC (record)
- 17 Focus ring (p. 58)
- 18 Remote sensor (p. 141)
- 19 Built-in microphone
- 20 Power zoom lever (p. 15)
- 21 TC RESET button (p. 14)
- 22 Viewfinder (p. 14)
- 23 Display window (p. 143)
- 24 FOCUS switch (p. 58)
- 25 PUSH AUTO button (p. 58)

134

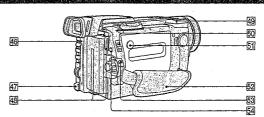
## dentifying the parts



- 26 LCD Screen (p. 16)
- 27 LCD BRIGHT buttons (p. 16, 23)
- 28 VOLUME buttons (p. 23)
- 29 RESET button (p. 131)
- 30 DATA CODE button (p. 79)
- 31 Speaker
- 32 START/STOP button (p. 13)
- 33 POWER switch (p. 13, 23) 34 ZEBRA selector (p. 50)
- 35 END SEARCH button (p. 22, 25)

- 36 DISPLAY button (p. 23)
- 37 MEMORY INDEX button (p. 104)
- 38 MEMORY PLAY button (p. 103)
- 39 PICTURE EFFECT button (p. 41) 1 DIGITAL EFFECT button (p. 42)
- 41 MEMORY DELETE button (p. 107)
- 42 MEMORY button (p. 103, 107) 43 MEMORY + button (p. 103, 107)
- 44 TITLE button (p. 63, 66)
- 45 MENU button (p. 28)

### ldentifying the parts



62 Grip strap (p. 20)

🔯 Lock knob (p. 14)

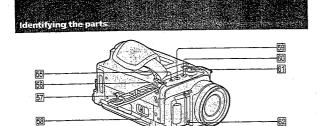
🔄 🛇 (self-timer) button (p. 19)

- 46 Access lamp (p. 90)
- 47 DC IN jack (p. 9)
- 48 Hooks for shoulder strap (p. 141)
- 49 Intelligent accessory shoe
- 50 EJECT switch (p. 12)
- 51 PUSH button (p. 12)

Intelligent Accessory Shoo Note on the intelligent accessory shoe Supplies power to optional accessories such as a video light or microphone. The intelligent accessory shoe is linked to the POWER switch, allowing you to turn on and off the power supplied by the shoe. Refer to the operating instruction of the accessory for further information. To connect an accessory, press down and push it to the end, and then tighten the screw. To remove an accessory, loosen the screw, and then press down and pull out the accessory.

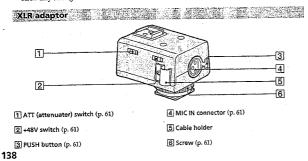
135

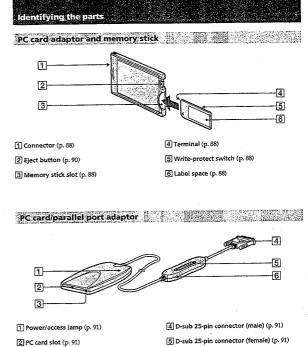
139



- b b V IN/OUT jack (p. 81)

  This "i.LlNK" mark is a trademark of Sony
  Corporation and indicates that this product is
  in agreement with IEEE 1394-1995
  specifications and their revisions. The B DV IN/OUT jack is i.LINK compatible.
- Tripod receptacle (p. 21)
  Make sure that the length of the tripod screw is less than 6.5 mm (9/32 inch). Otherwise, you cannot attach the tripod secrurely and the screw may damage the camcorder.
- 58 MEMORY RELEASE level
- 59 ∩ (headphones) jack (p. 23)
- 60 AUDIO/VIDEO jack (p. 70, 80)
- 61 S VIDEO jack (p. 34, 70, 80)
- 62 Camera recording lamp
- MIC jack (PLUG IN POWER) (p. 85) Connect an external microphone (not supplied). This jack also accepts a "plug-in-power" microphone.







The buttons that have the same name on the Remote Commander as on the camcorder function identically, 11 111 2 3 -12 4 -[13] 5 6 7 8 19

- 1 PHOTO button (p. 33)
- 2 DISPLAY button (p. 23)
- 3 Memory control buttons (p. 104)
- 4 SEARCH MODE button (p. 73, 75, 76)
- [5] Tape transport buttons (p. 23)
- 6 REC button (p. 84)/MARK button (p. 82)
- 7 AUDIO DUB button (p. 86)
- 8 1◀◀ /▶▶ buttons (p. 73, 75, 76)
- 9 Power zoom button (p. 15)
- [10] ZERO SET MEMORY button This button does not function
- 11 DATA CODE button (p. 79)
- [2] Transmitter
  Point toward the remote sensor to control the camcorder after turning on the camcorder.
- 3 START/STOP button (p. 13)

- To prepare the Remote Commander
  To use the Remote Commander, you must insert two size AA (R6) batteries. Use the supplied size AA (R6) batteries.
- (1) Remove the battery cover from the Remote Commander. (2) Insert both of the size AA (R6) batteries with correct polarity



# ntifying the parts

3 Eject button(p. 91)

Note on battery life
The batteries for the Remote Commander last about 6 months under normal operation.
When the batteries become weak or dead, the Remote Commander does not work.

6 DC jack (p. 91)

To avoid damage from possible battery leakage Remove the batteries when you will not use the Remote Commander for a long time.

### Remote control direction

Alm the Remote Commander to the remote sensor.

The operative range of the Remote Commander is about 5 m (16.4 feet) indoors. Depending on the angle, Remote Commander may not activate the camcorder.

### Notes on the Remote Commander

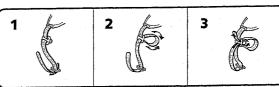
- Keep the remote sensor away from strong light sources such as direct sunlight or illumination. Otherwise, the remote control may not be effective.

   De sure that there is no obstacle between the remote sensor on the camcorder and the Remote Congrander.
- Remote Commander.

  \*This camcorder works in commander mode VTR 2. The commander modes (1, 2 and 3) are used to distinguish this camcorder from other Sony VCRs to avoid remote control misoperation. If you use another Sony VCR in commander mode VTR 2, we recommend you change the commander mode or cover the remote sensor of the VCR with black paper.

## Attaching the shoulder strap

Attach the supplied shoulder strap to the hooks for the shoulder strap.



2 FULL charge indicator (p. 9) 3 Remaining battery indicator (p. 9, 120)

Tape counter (p. 14) /
Memory counter (p. 10) /
Time code indicator (p. 13)

1 Cassette memory indicator (p. 116)

ntifying the pa

1 2

3 4

5

6

7

8

9

10 11

12

13

14 15

[2] Remaining battery indicator (p. 120)

[3] Zoom indicator (p. 15) /Exposure indicator (p. 45)/ Data file name indicator (p. 89)

4 Digital effect indicator (p. 43)

5 PROG.SCAN indicator (p. 35)/ 16:9WIDE indicator (p. 39)

6 Picture effect indicator (p. 41)

7 White balance indicator (p. 46)

B Gain shift indicator (p. 53)

9 AE shift indicator (p. 52)

10 Shutter speed indicator (p. 45)

11 Aperture indicator (p. 55)

12 Program AE indicator (p. 54)

[3] Back light indicator (p. 38)

[4] Steady shot OFF indicator (p. 51)

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[5] Manual focus/Infinity Indicator (p. 58)

17

18

-19

-[20]

21

-22

-23

-24

25 26

-27

f6 SP mode indicator (p. 24)

0:12:34 12 min 883

END SEARCH

Operation indicators

Œ 120min Œ SSTB

-STILLIIIIII -PROG. SCAN

17 Standby/Recording indicator (p. 13)/Tape transport mode indicator (p. 23)/Image quality mode indicator (p. 92)

18 Warning indicators (p. 144)

Time code indicator (p. 14) /Self diagnosis indicator (p. 132)/Image number indicator (p. 104)

20 Remaining tape indicator (p. 143)/Memory playback indicator (p. 104)

[2] END SEARCH indicator (p. 25)

22 Gain indicator (p. 79)

23 Audio mode indicator (p. 31)

24 Microphone level indicator (p. 48)

Continuous mode indicator (p. 102)

26 ND filter indicator (p. 49)

27 Video flash ready indicator (p. 33)

28 Self-timer indicator (p. 19)

143

### Warning indicators

If indicators flash on the LCD screen or in the viewfinder or warning messages appear on the screen, check the following: h: You can hear the beep sound when BEEP is set to MELODY or NORMAL in the menu

1 2 3 3min 🖾 ※ ※※ 灤 6 4 5 22. PP. ተኮ <u>₩</u>-※※ 紫紫 9 7 8 -C:21:10 CLOCK SET CLEANING CASSETTE 坎

[] The battery is weak or dead.
Slow flashing: The battery is weak.
Fast flashing: The battery is dead.
Depending on conditions, the ♥□ indicator
may flash, even if there are 5 to 10 minutes
remaining.

2 The tape is near the end. The flashing is slow.

The tape has run out. The flashing becomes rapid.

[4] No tape has been inserted.

[5] The tab on the tape is out (red).

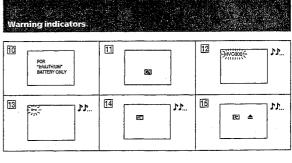
6 Moisture condensation has occurred. (p. 123)

7 The video heads may be contaminated. (p. 123)

8 The clock is not set.

When this message appears though you set the date and time, the vanadium-lithium battery is discharged. Charge the vanadium lithium battery. (p. 117)

 Some other trouble has occurred.
 Use the self-diagnosis function (p. 132). If the display does not disappear, contact your Sony dealer or local authorized Sony service facility.



10 The battery is not the "InfoLITHIUM" type.

The tape has no cassette memory. (p. 5)

[12] The file cannot be read properly.

13 The image data file is protected. The flashing is slow.

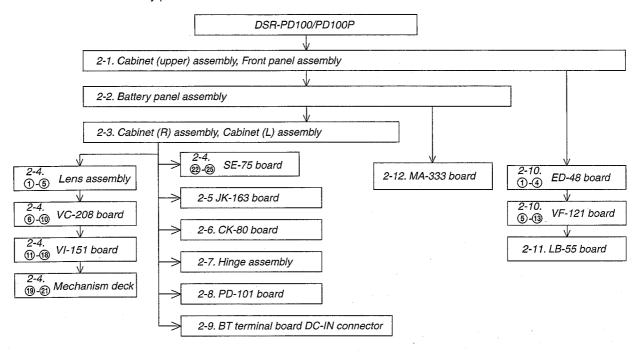
14 The tape has no memory left or cannot use the memory.

15 The protect tab is set to prevent accidental



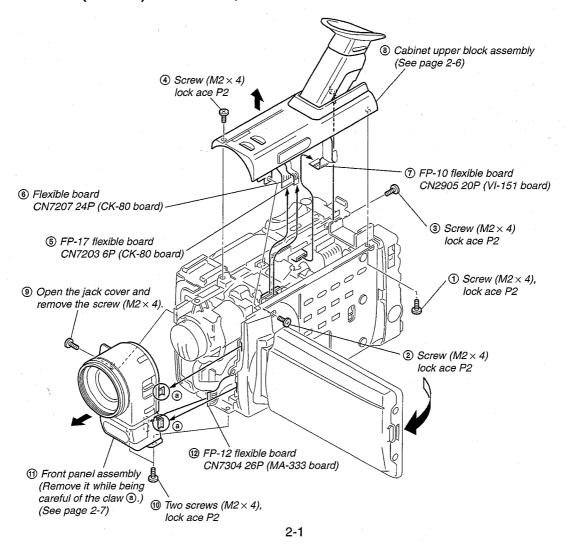
# SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure as shown in the flow chart below.

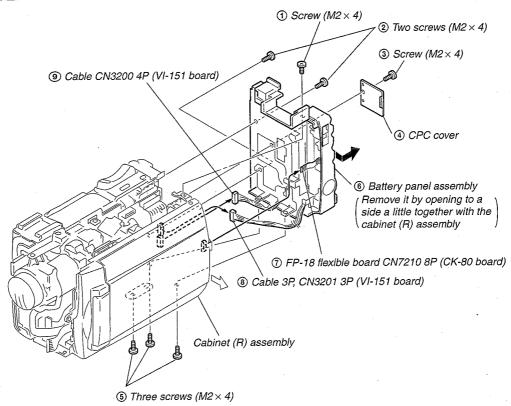


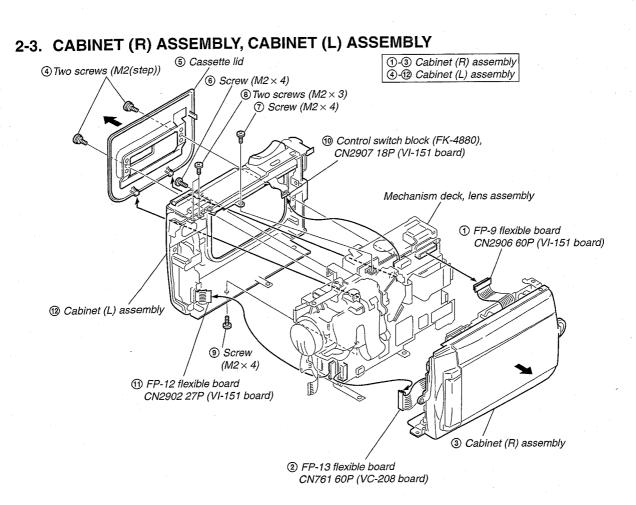
NOTE: Follow the disassembly procedure in the numerical order given.

## 2-1. CABINET (UPPER) ASSEMBLY, FRONT PANEL ASSEMBLY

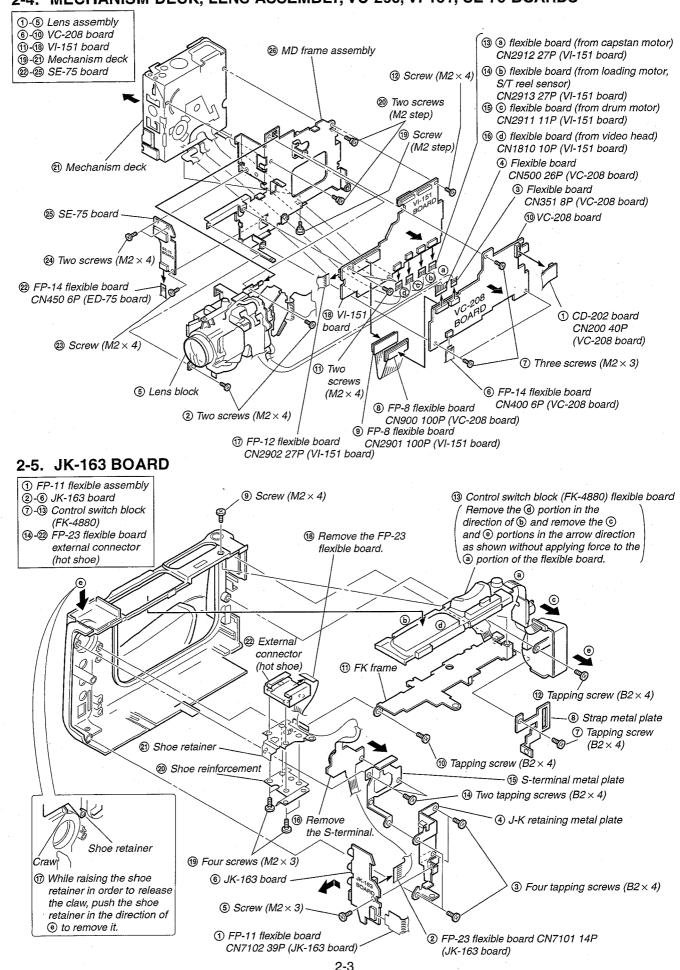


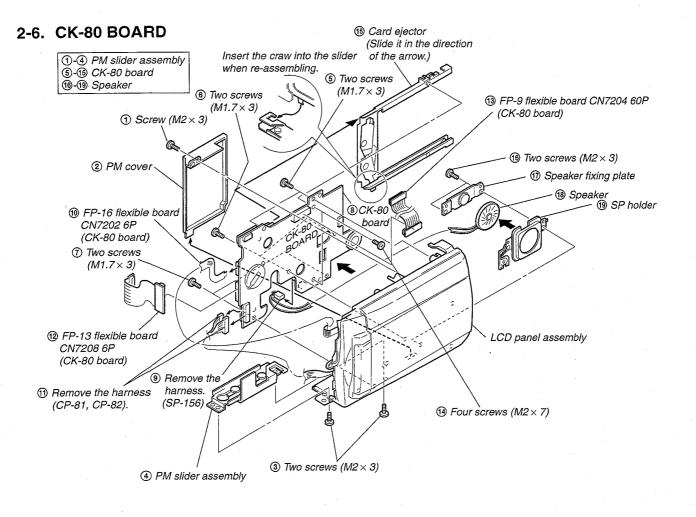
## 2-2. BATTERY PANEL ASSEMBLY



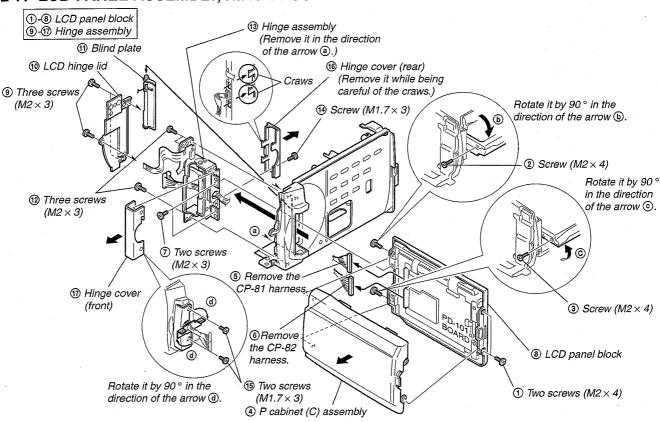


## 2-4. MECHANISM DECK, LENS ASSEMBLY, VC-208, VI-151, SE-75 BOARDS

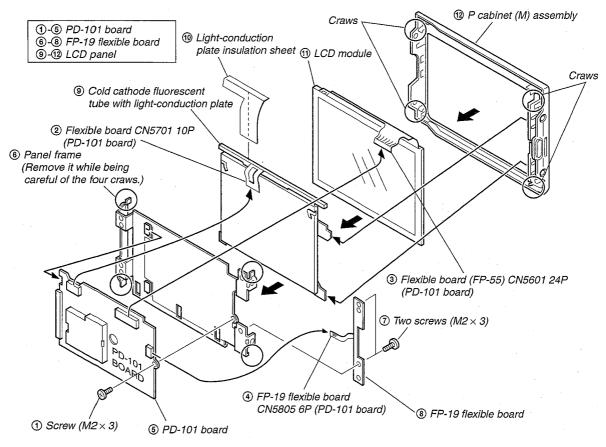




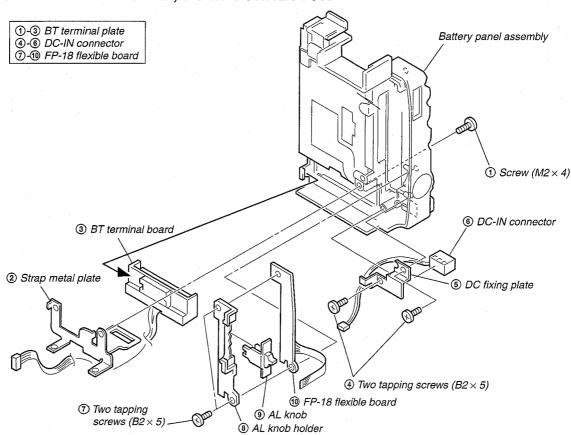
## 2-7. LCD PANEL ASSEMBLY, HINGE ASSEMBLY

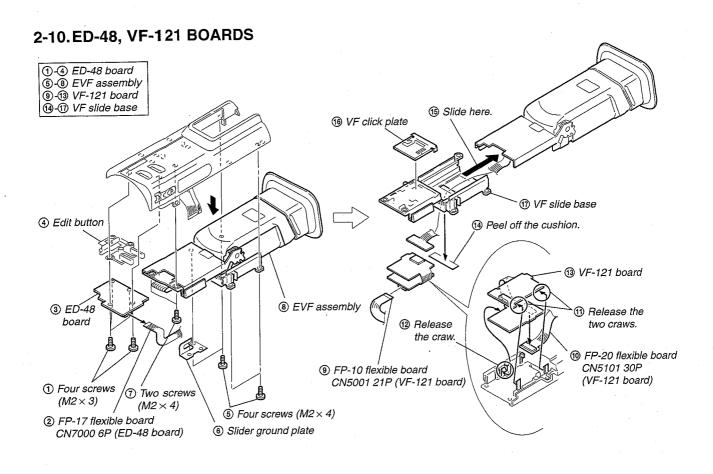


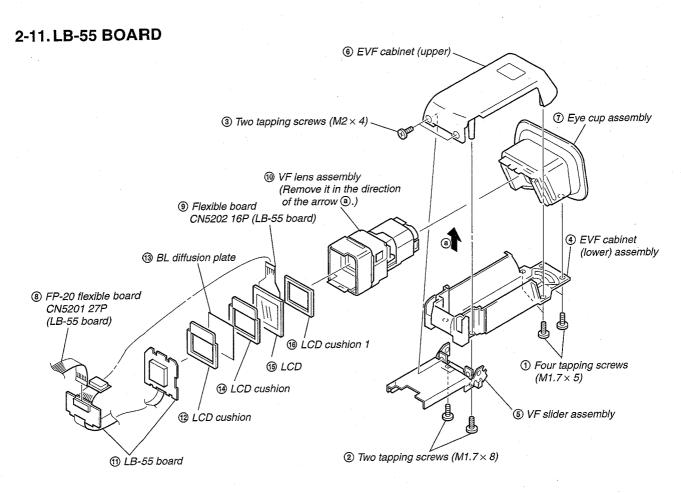
## 2-8. PD-101 BOARD



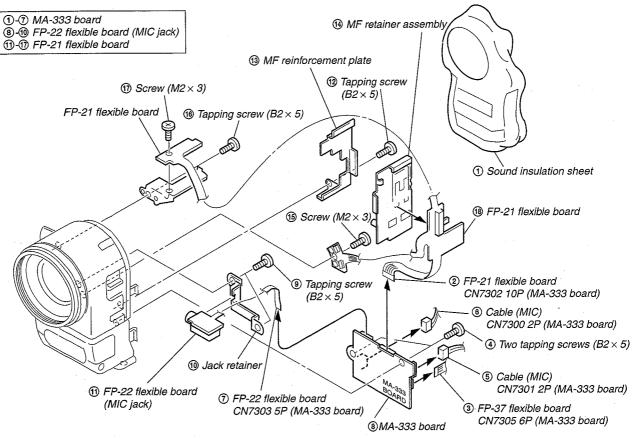
## 2-9. BT TERMINAL BOARD, DC-IN CONNECTOR



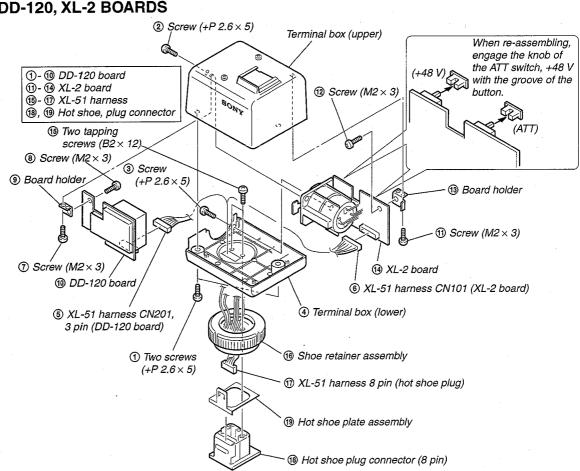




## 2-12.MA-333 BOARD

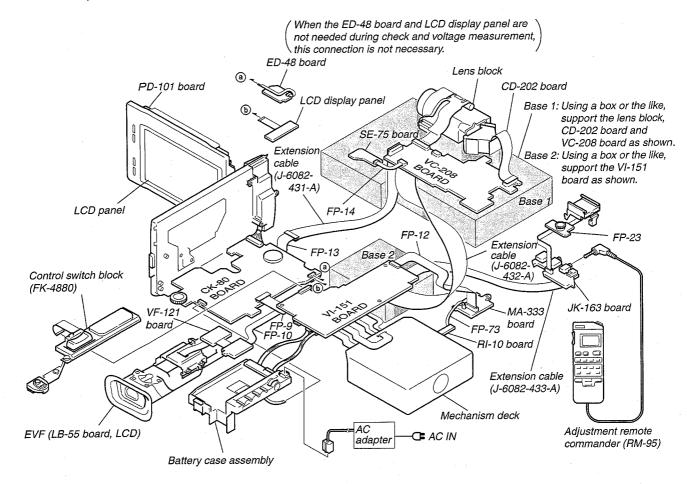


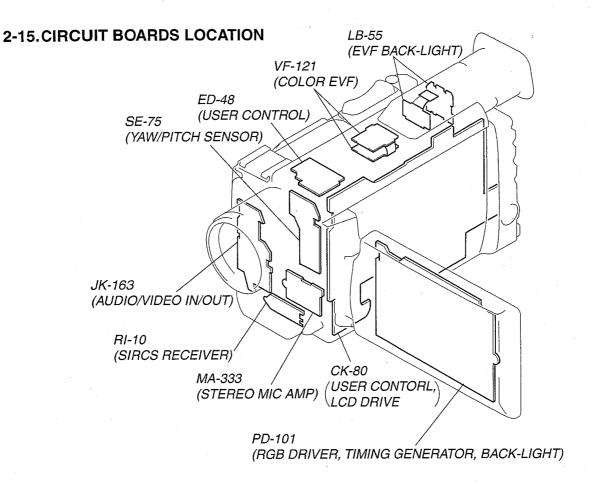
## 2-13.DD-120, XL-2 BOARDS

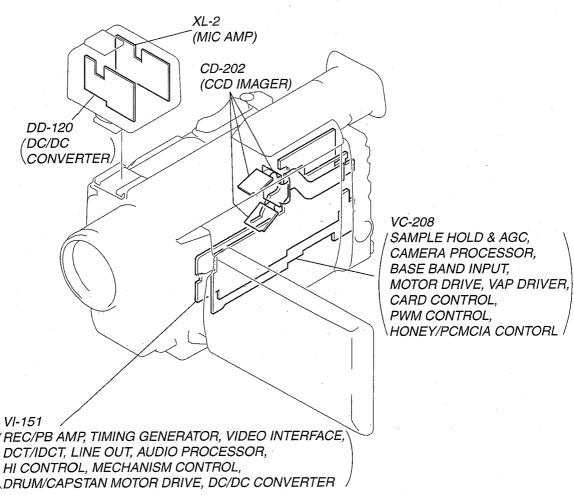


## 2-14. SERVICE POSITION (Mainly for check and voltage measurement)

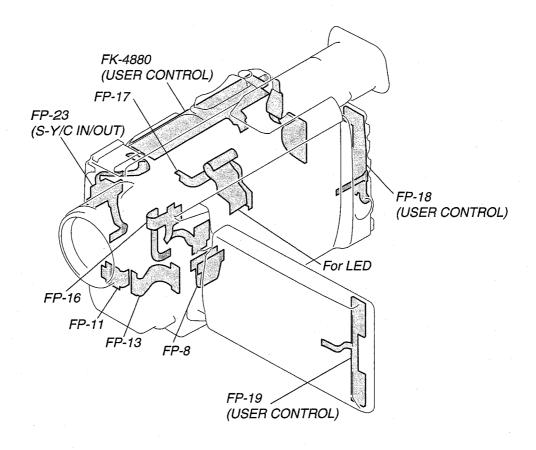
Firstly, remove the following parts referring to DISASSEMBLY (sections 2-1 to 2-6, 2-10 and 2-12), and connect parts as shown below.

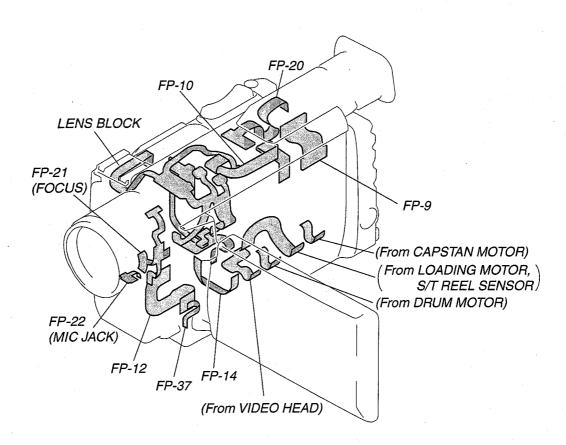




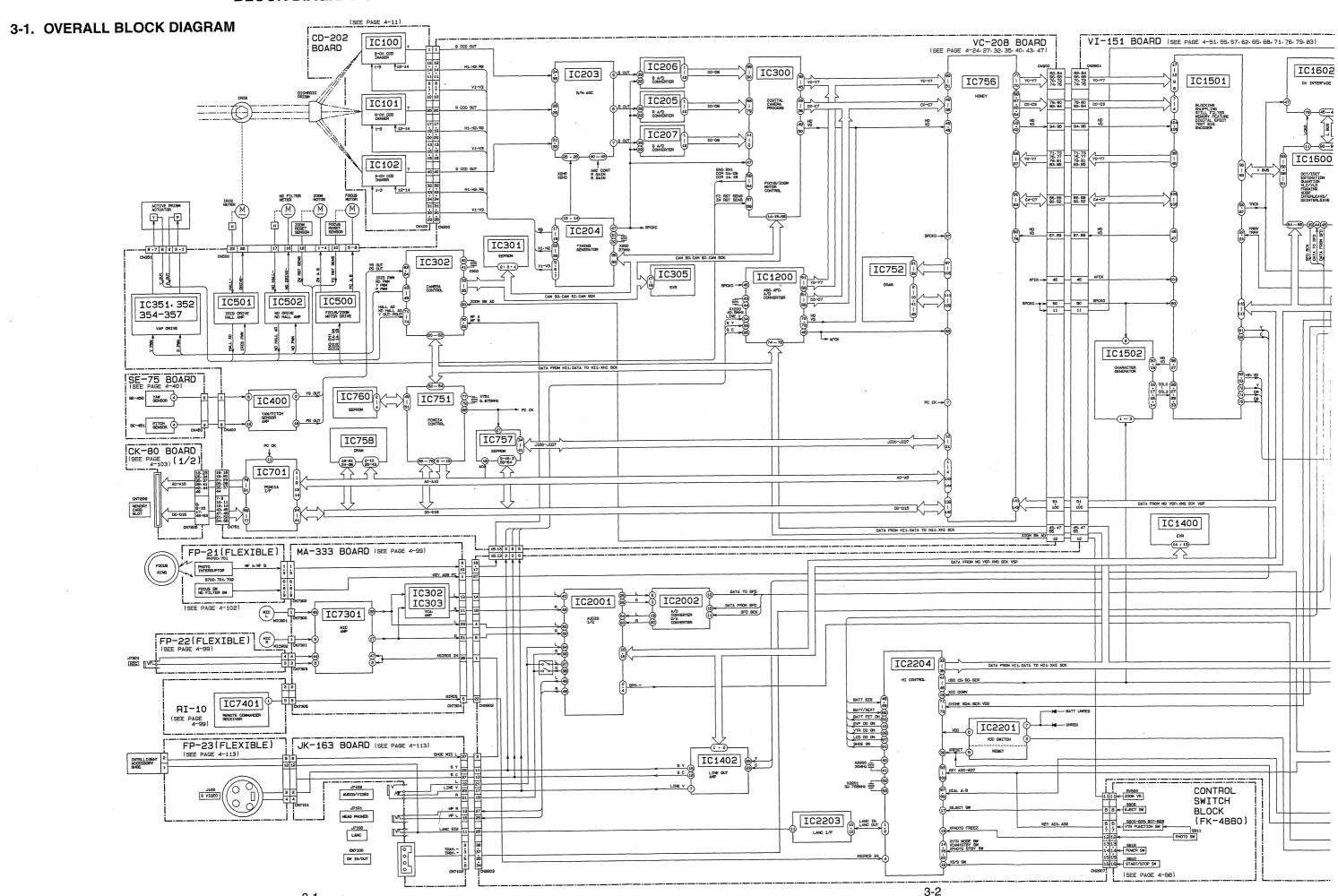


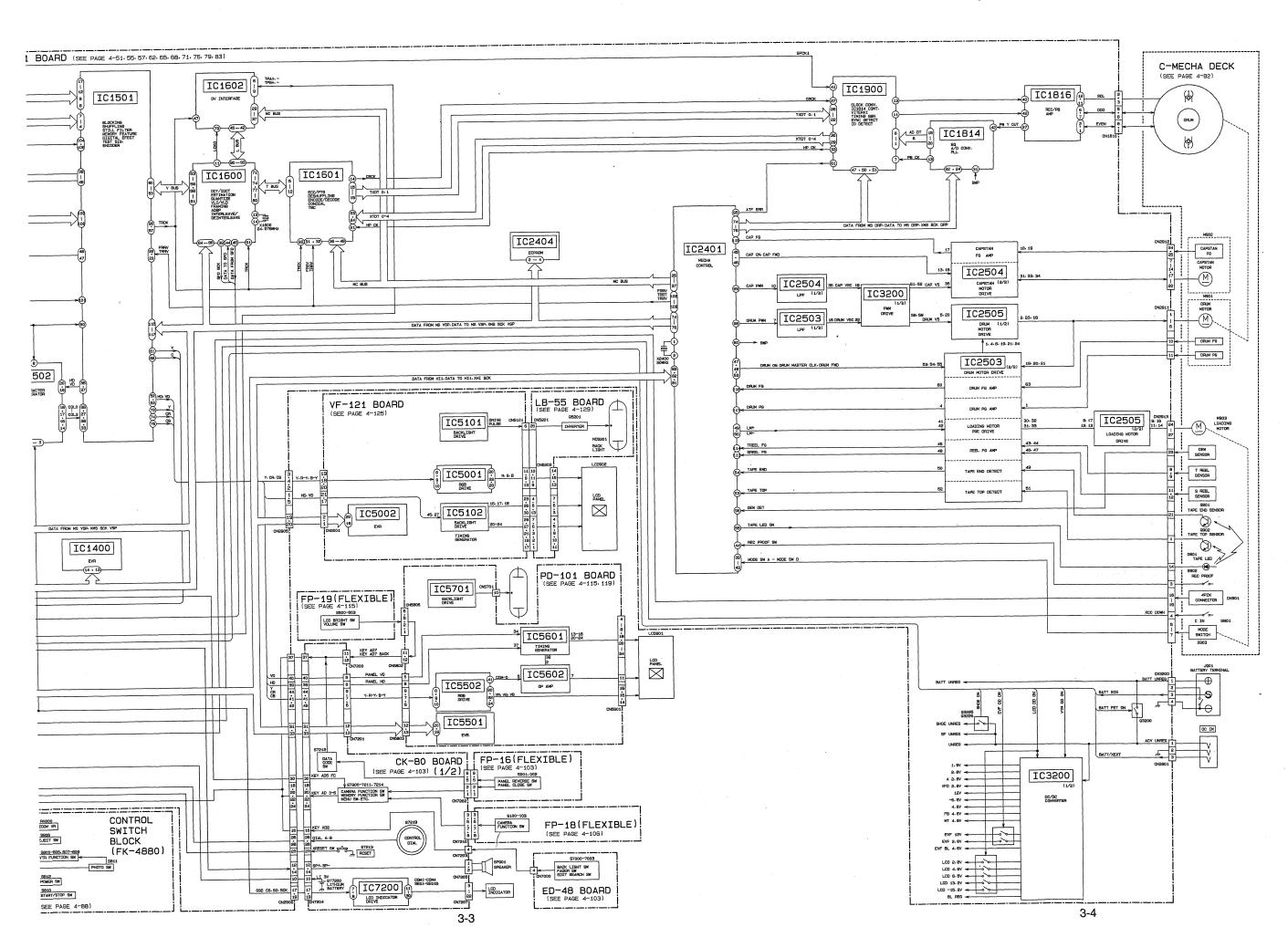
## 2-16.FLEXIBLE BOARDS LOCATION





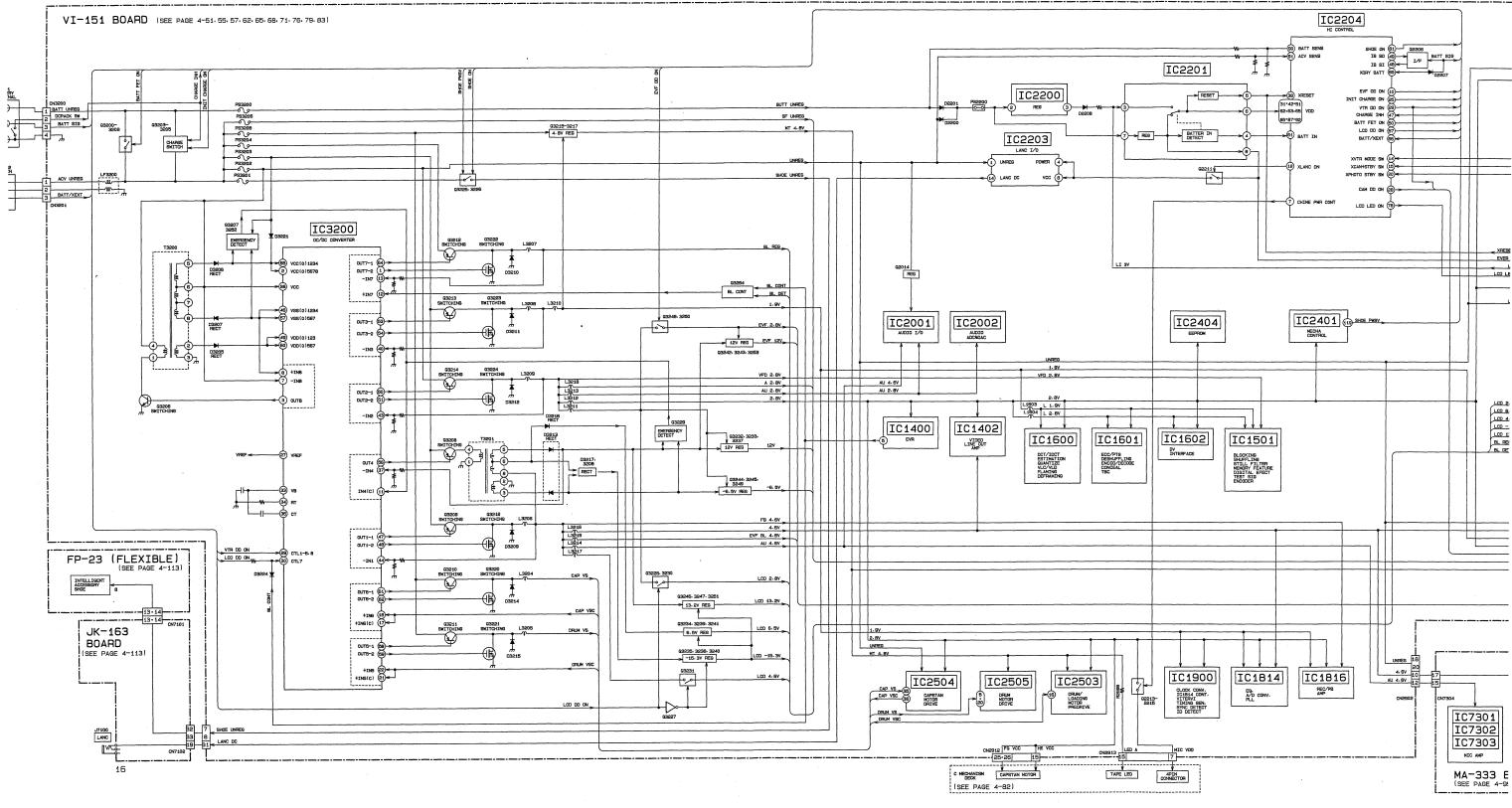
SECTION 3
BLOCK DIAGRAMS

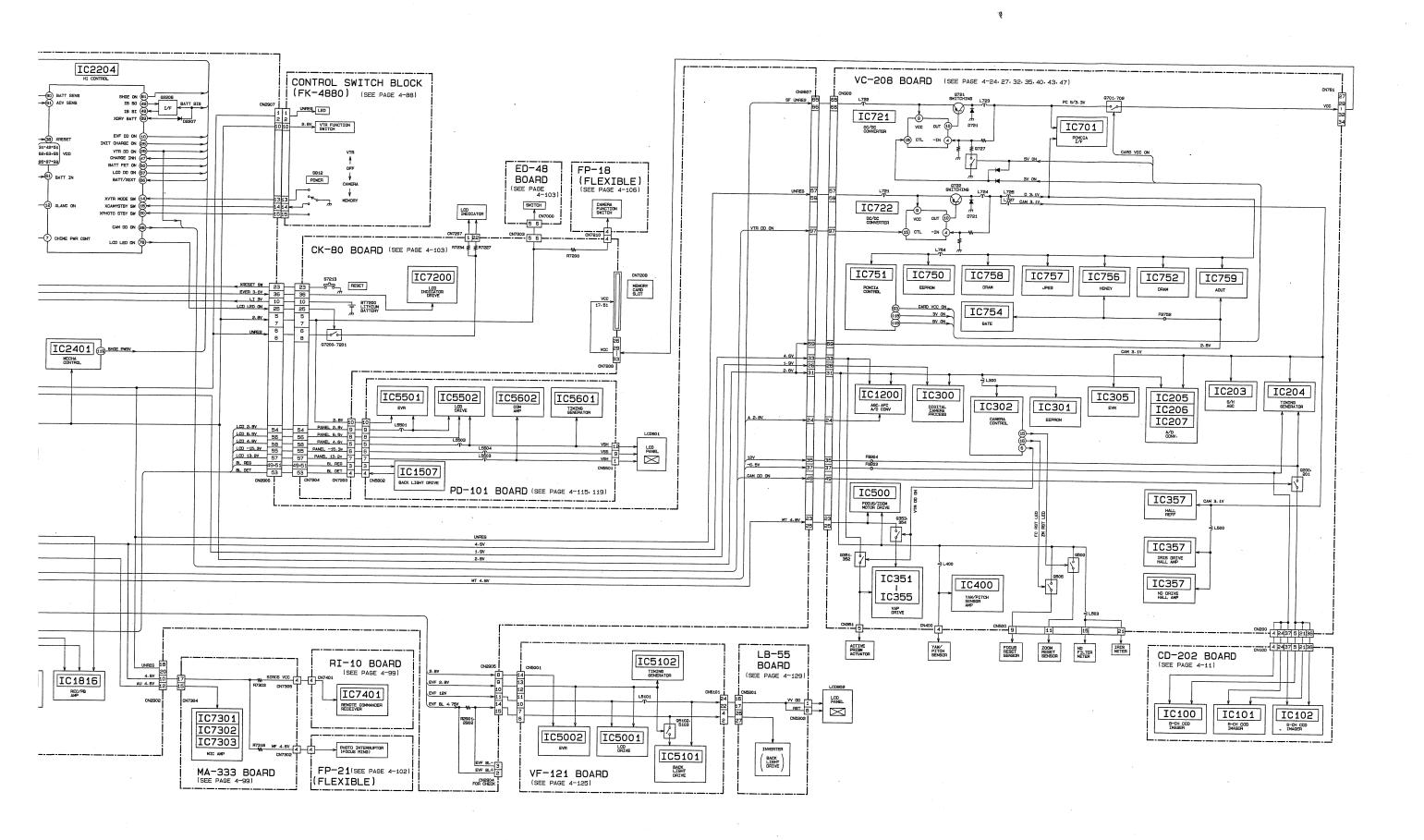




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## 2. POWER BLOCK DIAGRAM





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4-1

16

### PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS 9 12 13 4 5 6 8 10 11 14 4-1. FRAME SCHEMATIC DIAGRAM-1 CD-202 BOARD CN761 60P CN002 60P 60 GND 58 GND 56 D3 54 D4 52 D5 50 D6 GND 59 60 GND GND 57 58 GND GND 55 56 D3 CD1 53 54 D4 D11 51 52 D5 D12 49 50 D6 GND 59 GND 55 GND 55 CD1 53 В 3-CCD IMAGEA **LENS** D11 51 D12 4 D12 49 50 D6 D13 47 48 D7 D14 45 46 CE1 D15 43 44 A10 CE2 41 42 DE VS1 39 40 IORD A9 37 38 IOWA A8 35 36 WE PEADY 33 34 VCC VCC 31 32 VCC VCC 27 28 A7 A6 25 26 VS2 A5 23 24 RESET A4 21 22 WALT UNIT 48 D7 45 CE1 44 A10 42 OE 40 IORD 38 IOWR 36 WE 34 VCC 32 VCC D13 4 D14 45 D15 4 CE2 41 VS1 39 A9 37 AB 35 READY 33 VCC 31 FP-13 VCC 29 26 VS2 24 RESET 22 WAIT A6 25 A5 23 A4 21 A4 21 22 WAIT A3 19 20 A2 REG 17 18 A1 BVD2 15 16 A0 D B Γ D D 4 M C 4 A3 19 | BIASH | HALL | BIASH REG 17 BVD2 15 BVD1 13 14 D0 DB 11 12 D1 D9 9 10 D2 D10 7 B WP BVD1 13 12 D6 10 D5 8 D4 6 D3 4 GND DB 11 D9 9 D10 7 CD2 5 6 GND GND 3 4 GND X3S\_LED 1 2 GND 6 GND CD2 5 GND 3 4 GND 2 GND VC-208 BOARD ED-48 BOARD | 39 | 6KD | 30 | 6KD 20 EDITSEARCH -EDITSEARCH -BACK LIGHT FADER G Н FP FLE. Ι FP-14 FLEXIBLE ω 10 4 m 01 -4450 6P YS\_BEF GND 2.8V PS\_OUT К SE451 (PITCH) FP-8 FLEXIBLE CONTINUED ON PAGE 4-7 SE-75 BOARD

25 27 28 29 24 26 19 20 21 22 23 17 18 16 15 12 13 14 MEMORY CARD SLOT CN7208 60P CN001 60P N002 60P 60 GND 58 GND 56 GND X3S\_LED 59 X3S\_LED 59 60 GND GND 5 GND 57 58 GND GND 57 GND ! CD2 55 56 GND D10 53 54 WP CD2 55 GND 5 D10 5 54 WP 52 D2 CD1 D9 51 52 D2 D9 51 D11 5 D8 49 50 D1 DB 49 50 D1 48 D0 46 A0 44 A1 D12 4 BVD1 47 BVD1 47 48 D0 BVD2 45 46 A0 REG 43 44 A1 D13 4 D14 45 REG 43 D15 43 42 A2 40 WAIT 38 RESET 36 VS2 34 A7 A3 41 42 A2 A4 39 40 WAIT A5 37 38 RESET A3 4 CE2 41 PD-101 BOARD VS1 39 1/2 RGB BLOCK 2/2 TG BLOCK A5 37 A9 3 A6 35 36 VS2 VCC 33 34 A7 VCC 31 32 VCC VCC 29 30 VCC A6 35 CN5805 6 AB 35 50 VCC 33 KEY\_AD7 6 READY 3 VCC 31 KEY\AD7\_S1 5 30 VCC CK-80 BOARD VCC 3  $\omega$ VCC 29 READY 27 CN5802 12P GND 4 vcc a CN7200 12P LCD BRIGHT + LCD BRIGHT -VOLUME + VOLUME -READY 27 28 VCC

A8 25 26 WE

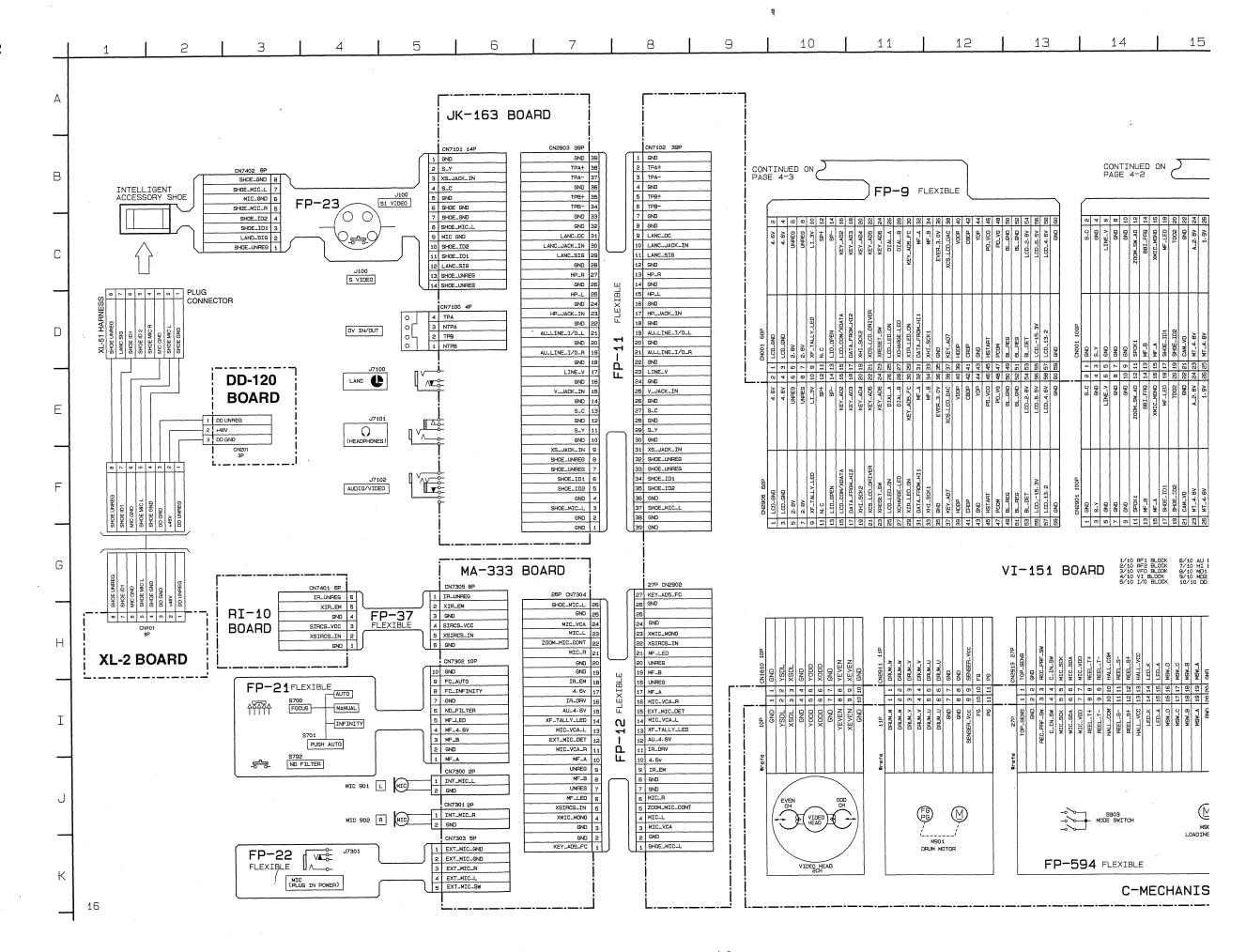
A9 23 24 IOWR

VS1 21 22 IORD

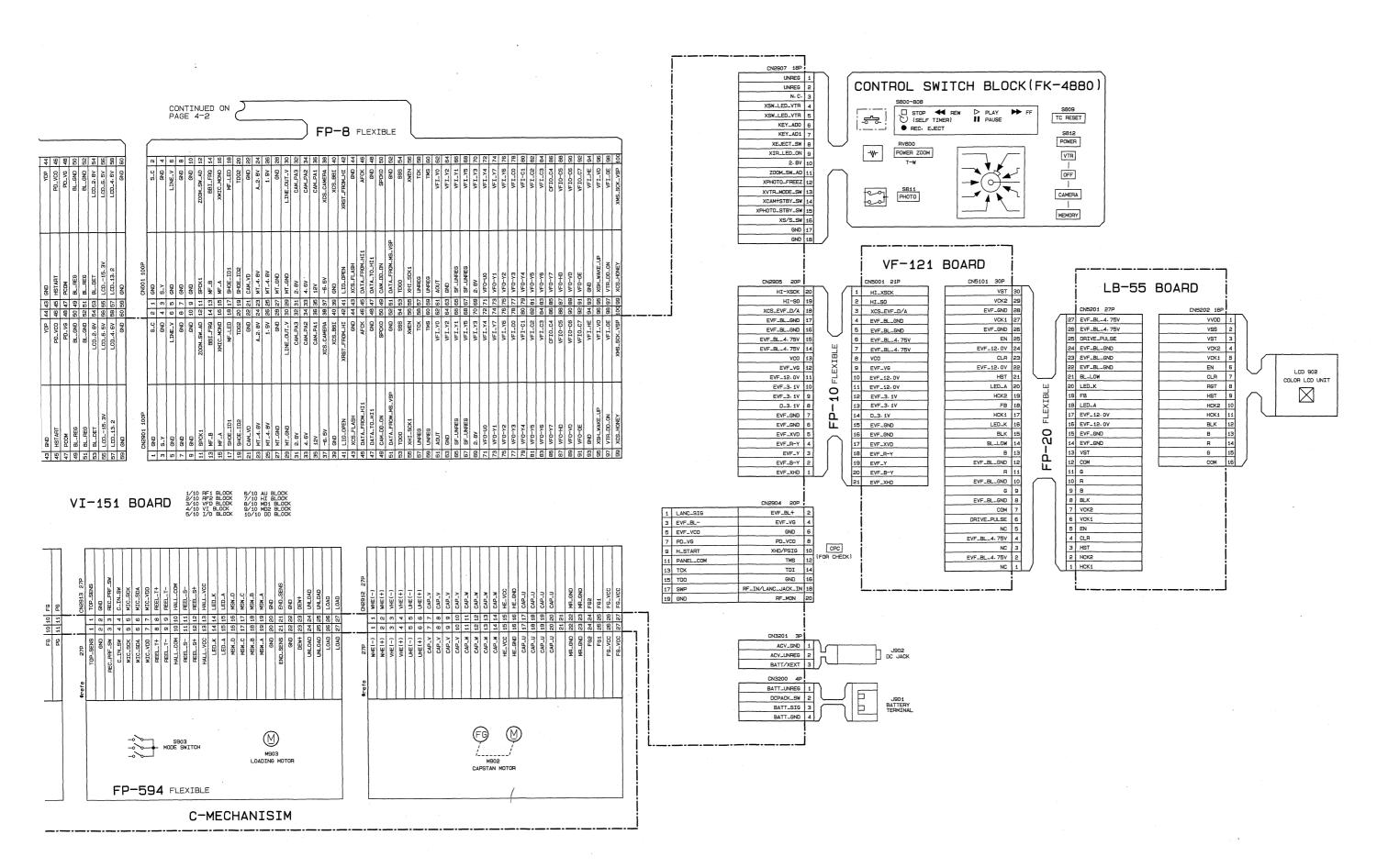
CE2 19 20 0E GND 3 VCC 2 12 KEY\_AD7\_BACK BL-GND 1 26 WE 24 IOWR AB 25 KEY\_AD7\_S2 2 11 KEY\_AD7 A6 2 BL-GND 2 A9 23 KEY\_AD7\_S3 1 S7000~7209+S7211~7213 A5 2 ш BL-REG 3 10 2. BV VS1 21 CE2 19 2 CN5601 24P A4 2 MEMORY PLAY, MEMORY INDEX, MEMORY DELETE, MEMORY+, MEMORY-, PICTURE EFFECT, DIGIATL EFFECT, TITTLE, MENU, RESET, DATA CODE, DISPLAY, END SEARCH 9 PANEL\_2-BV BL-DET 4 CP-81 PANEL\_4.6V PANEL\_6.5V VSH/VSH/CLD 24 VSH/VSH/ULD |24 CS/VDD/SPD |23 VR/VR/CTR |22 VB/VB/EX3 |21 VG/VG/EX2 |20 VSS/VSS/VB12 |19 MODE1/MODE1/MES |18 HARNESS D15 17 18 A10 D15 17 REG : 18 A10 PANEL\_-15, 3V 6 7 PANEL\_13. 2V D14 15 16 CE1 D14 15 BVD2 1 16 CE1 PANEL\_13. 2V 6 PANEL\_-15.3V BVD1 1 5 PANEL\_4. 6V PANEL\_6.5V 8 D13 13 14 D7
D12 11 12 D6
D11 9 10 D5
CD1 7 8 D4
GND 5 6 D3 12 D6 10 D5 8 D4 6 D3 4 GND 2 GND D12 1 DB 1 S7210, S7214 ZEBRA AUTO LOCK PANEL\_2. BV 9 4 BL\_DET D11 9 D9 9 2. BV 10 3 BL\_REG CD1 7 D10 7 2 BL\_GND KEY\_AD7 1 GND 5 CD2 E KEY\_AD7\_BACK BL\_GND MCLK/MCLK/TST 17 GND 3 4 GND GND 3 HCNT/HCNT/VR 16 0E/CLR/VG 15 SRTL/0E/VB 14 GND 3 X3S\_LED 1 GND 1 2 GND CN5803 13P CN7201 13P S7219 SEL/PUSH EXEC VCO\_VOLTAGE 1 13 XHI\_SCK1 LCD901 3.5INCH COLOR LCD UNIT Ó SRTM/SRTL/GND 13 HSY 12 DATA\_FROM\_HI1 SRTR/SRTR/VSH 12 PANEL\_COM : XCS\_LCD\_DAC ED-48 BOARD VBC/VBC/COM 11 PANEL\_VG -CP-82 VCOM/VCOM/VGL 10 50 CN7000 6P PANEL\_XVD 5 PANEL\_Y HARNESS GND 1 MODE2/MODE2/VSS 9 PANEL\_B-Y PANEL\_XHD GND 2 2 GND BT7200 V/L RICHARGEABL BATTERY PANEL\_R-Y PANEL\_R-Y RESET/RESET/MO2 8 FP-17 N.C 3 PANEL\_XHD PANEL\_B-Y GSRT/GSRT/M01 7 KEY\_AD2 4 4 KEY\_AD2 PANEL\_Y 9 5 PANEL\_XVD GPCK/GPCK/EX1 6 2. BV 5 5 2.8V GRES/GRES/SPS 5 PANEL\_VG GND 10 2. BV 6 VREFL/VREFL/CLS 4 XCS\_LCD\_DAC DATA\_FROM\_HI1 2 HSY VGL/VGL/VCC 3 VDD/VREFH/VSH 2 CN7202 6P XHI\_SCK1 13 VCO\_VOLT VGH/VGH/VGH 1 PANEL REV FP-16 CN7202 24P 2 PANEL REV CN5701 10P BL\_GND 24 FLEXIBLE BL\_HIGH 10 BL\_VDD 23 S001-002 COM4 2 5 PANEL CLOSE N.C B сомз ND5201 BACK LIGHT 6 PANEL CLOSE N. C 7 (PANEL REV. PANEL CLOSE) SEG15 2 N-C 6 SEG16 19 N.C 5 SEG1 N-C 4 SEG14 CN7210 BP BL\_LOW 3 SEG13 16 LED 2 FP-18 SEG12 1 2 GND LED\_GND 1 SEG11 14 EXPOSURE 3S\_LED\_2. 8V SEG10 13 SEG9 12 X3S\_LED SHUTTER SPEED WHITE BALANCE PROGRAM AE EXPOSURE SEGB 1 SHUTTER WHT BAL SEG7 10 SEG6 9 P. AE FP-55 FLEXIBLE LCD903 SEG5 8 SEG4 7 SEG3 6 SEG2 5 | CD. 4. 6V | CD. COM2 4 COM1 3 BL\_GND 2 SP-156 CN7205 2P HARNESS SP+ 1 SP901 SPEAKER 

FP-9 FLEXIBLE

AME SCHEMATIC DIAGRAM-2



. | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29



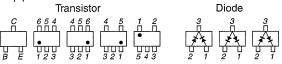
## DSR-PD100/PD100P

## 4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

## THIS NOTE IS COMMON FOR WIRING BOARDS AND SCHEMATIC DIAGRAMS (In addition to this, the necessary note is printed in each block)

### (For printed wiring boards)

- Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)
- Through hole is omitted.
- · Circled numbers refer to waveforms.
- There are few cases that the part printed on diagram isn't mounted in this model.
- Chip parts.

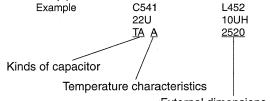


### (For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10W unless otherwise noted.
- $k\Omega = 1000\Omega$ ,  $M\Omega = 1000k\Omega$ .
- Caution when replacing chip parts.

New parts must be attached after removal of chip. Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.

Some chip part will be indicated as follows.



External dimensions (mm)

 Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.

In such cases, the unused circuits may be indicated.

- Parts with ★ differ according to the model/destination.
- Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name

 $X \to DIT \to DIT PB/XREC \to PB/\overline{REC}$ 

- - : non flammable resistor
- two : fusible resistor
   panel designati : panel designation
- : B+ Line \*
- --- : B- Line \*
- : IN/OUT direction of (+,-) B LINE. \*
  : adjustment for repair. \*
- Circled numbers refer to waveforms. \*
- \* Indicated by the color red.

## Note:

The components identified by mark △ or dotted line with mark  $\triangle$  are critical for safety.

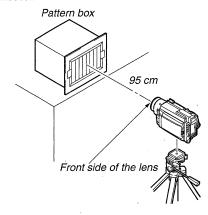
Replace only with part number specified.

Les composants identifiés par une marque A sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

### (Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference wave-
- (VOM of DC 10 MW input impedance is used.).
- Voltage values change depending upon input impedance of VOM
- 1. Connection



2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

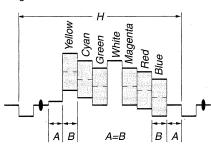


Fig. a (Video output terminal output waveform)

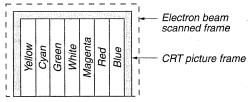


Fig.b (Picture on monitor TV)

- 3. The LINE REC waveform shows the waveform when the color for signal (video signal) is input from a color bar pattern.
- The LINE OUT waveform shows the waveform when the signals are connected to the S-VIDEO and VIDEO/AUDIO jacks but not to other jacks.

When indicating parts by reference number, pleas include the board name.

# CD-202 BOARD CD-202 (CCD IMAGER) PRINTED WIRING BOARD — Ref. No. CD-202 Board; 10,000 Series — CD-202 BOARD (SIDE B) CD-202 BOARD (SIDE A) F (B) Ε D C В 1-670-994-1-670-994-(G) A 10 6 3

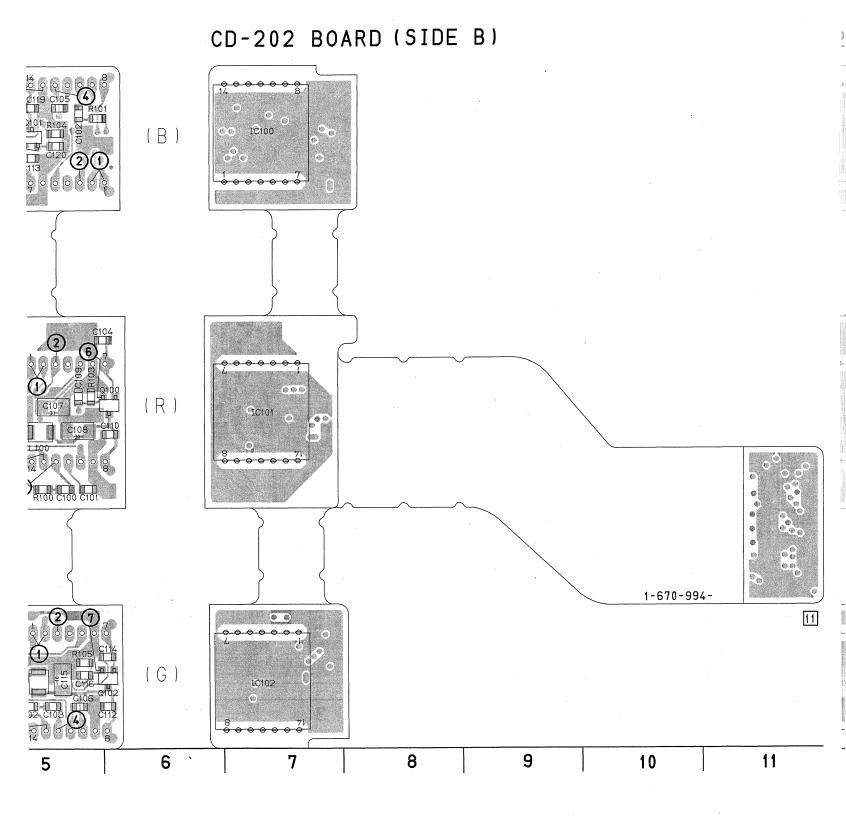
C100 C-5
C101 C-5
C102 F-5
C103 A-5
C104 D-5
C105 F-5
C106 A-5
C107 C-5
C108 C-5
C109 C-5
C110 C-6
C111 A-5
C112 A-6
C113 E-5
C114 A-6
C115 A-5
C116 A-5
C117 F-5
C116 F-5
C119 F-5
C120 E-5 L100 L101 L102 Q100 Q101 Q102 R100 R101 R102 R103 R104 R105

For printed wiring

This board is six-k terns of layers two the diagram.

Chip parts

There are few ca diagram isn't mc



CD-202 BOARD

CN100 B-1

C100 C101 C102 C103 C104 C105 C106 C107 C108 C109 C110 C111 C112 C113 C114 C115 C116 C117 C118 C119 C120 IC100 F-7 IC101 C-7 IC102 A-7 L100 C-5 L101 A-5 L102 E-5 Q100 Q101 Q102 C-6 F-5 A-6 R100 C-5 R101 F-5 R102 A-5 R103 C-5 R104 F-5 R105 A-5

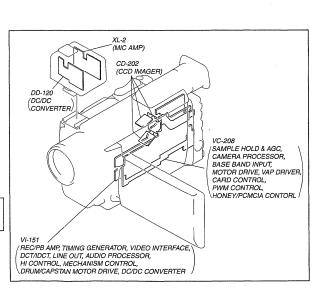
For printed wiring boards

• This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

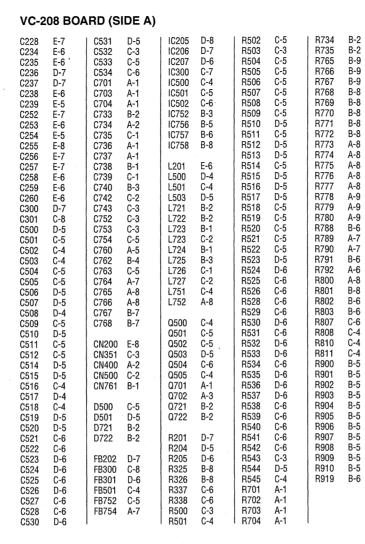
• Chip parts

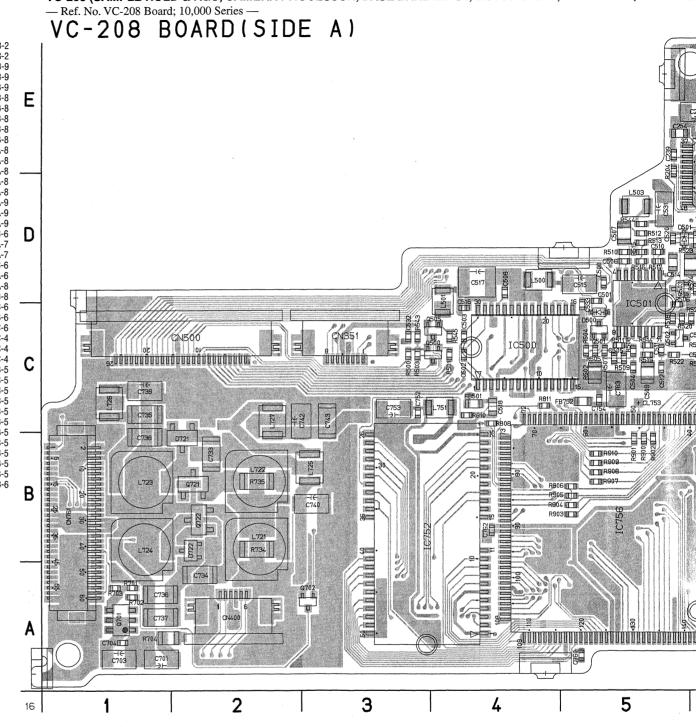
Transistor

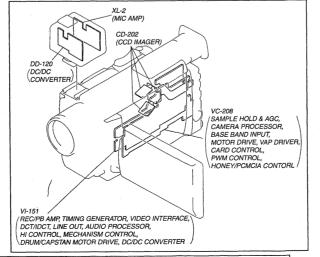
There are few cases that the part printed on this diagram isn't mounted in this model.



## VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CONT







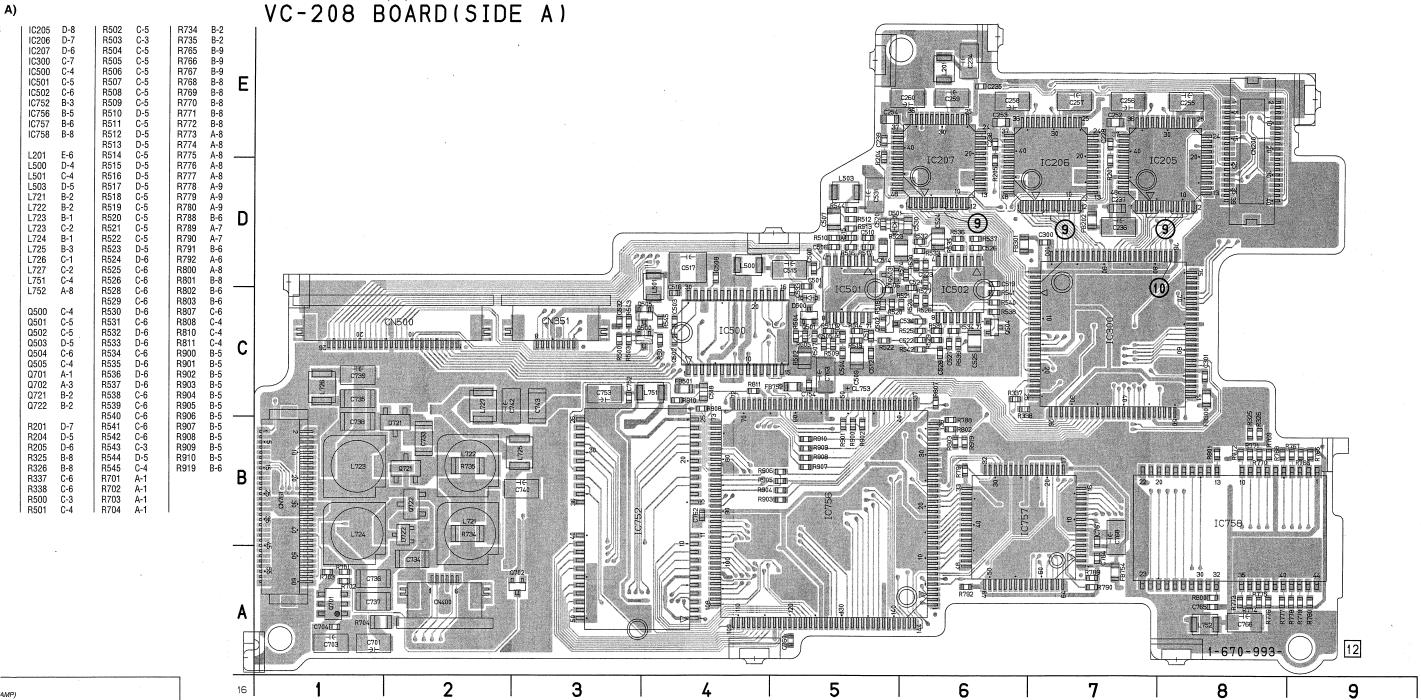
For printed wiring boards

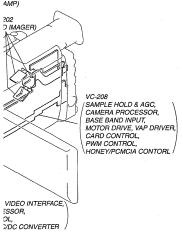
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CONTROL, PWM CONTROL, HONEY, PCMCIA CONTROL) PRINTED WIRING BOARD — Ref. No. VC-208 Board; 10,000 Series —





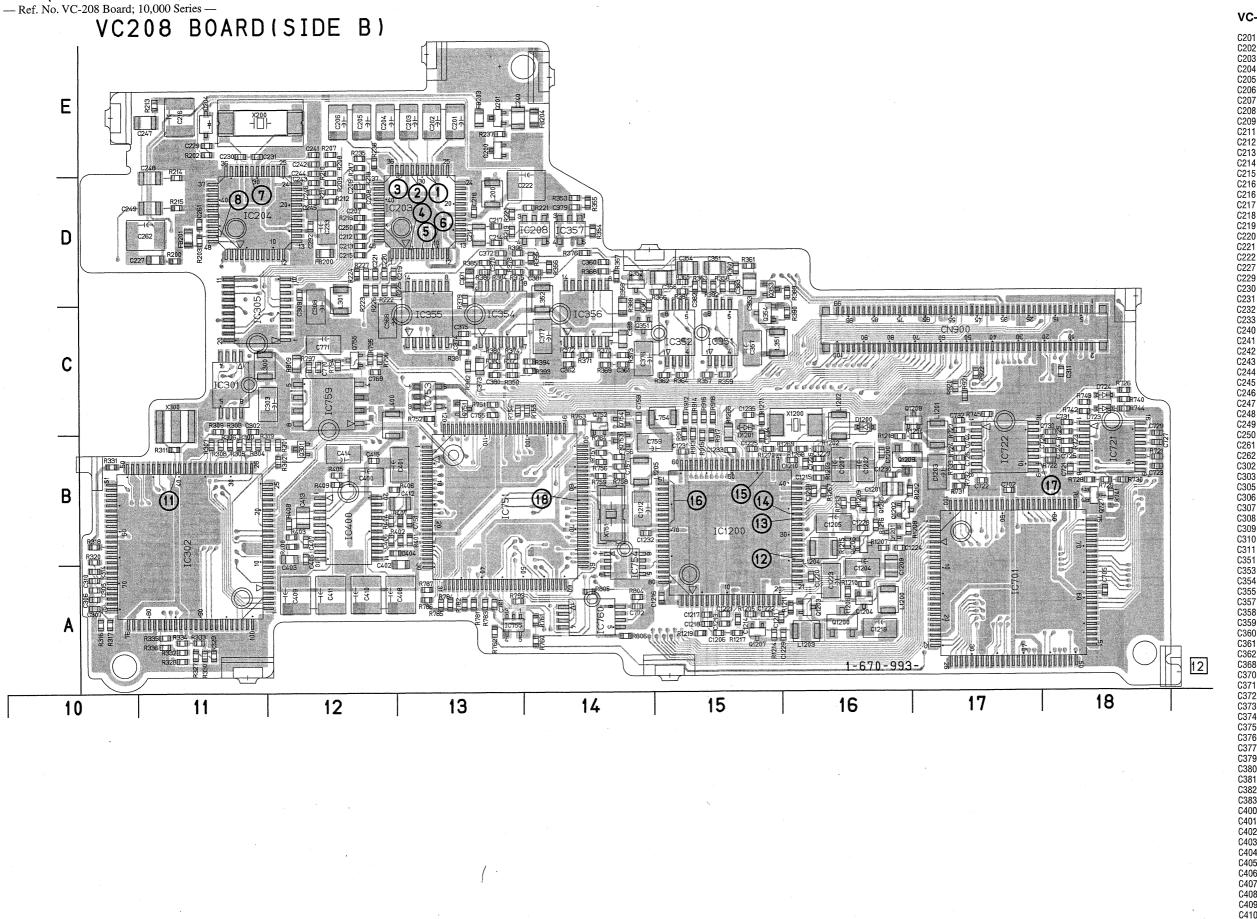
## For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

VC-208 (SAMPLE HOLD & AGC, CAMERA PROCESSOR, BASE BAND INPUT, MOTOR DRIVE, VAP DRIVER, CARD CONTROL, PWM CONTROL, HONEY, PCMCIA CONTROL) PRINTED WIRING BOARD

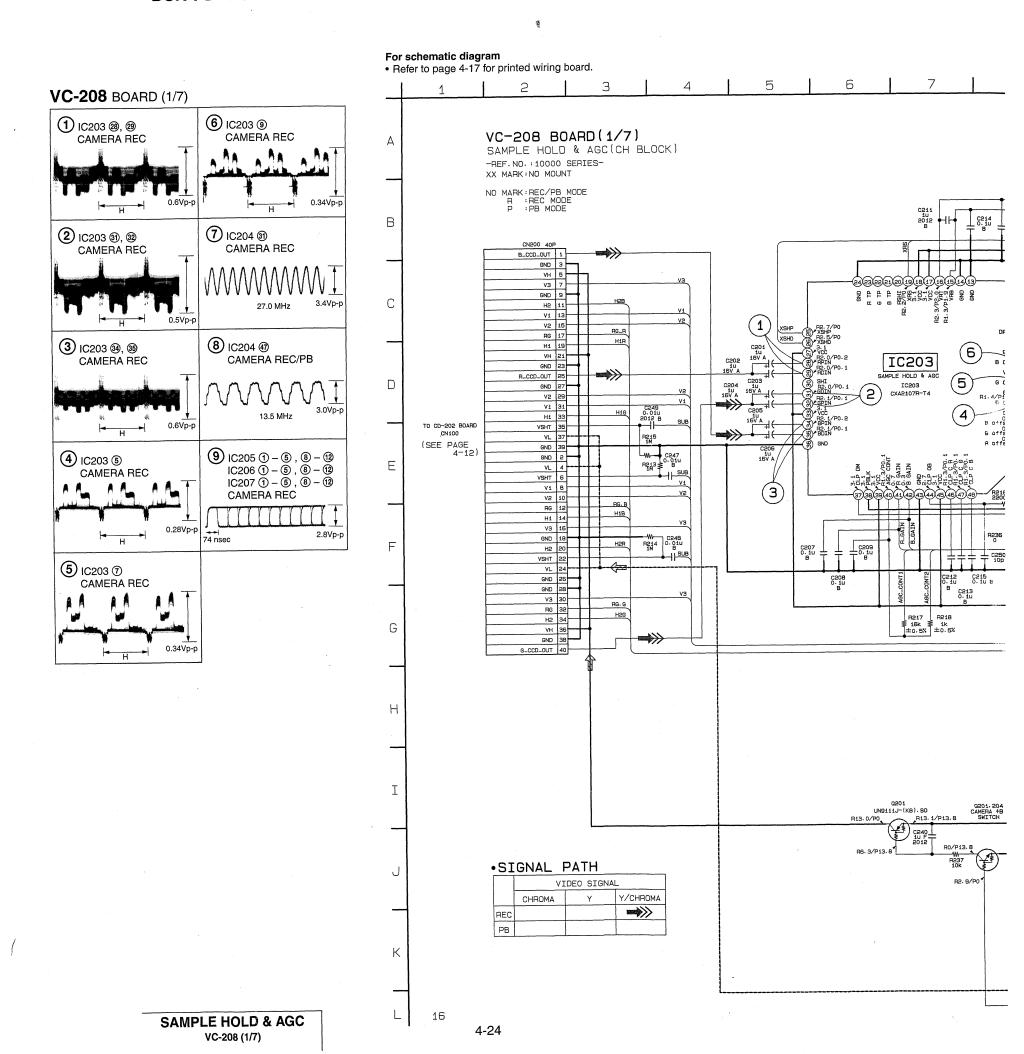


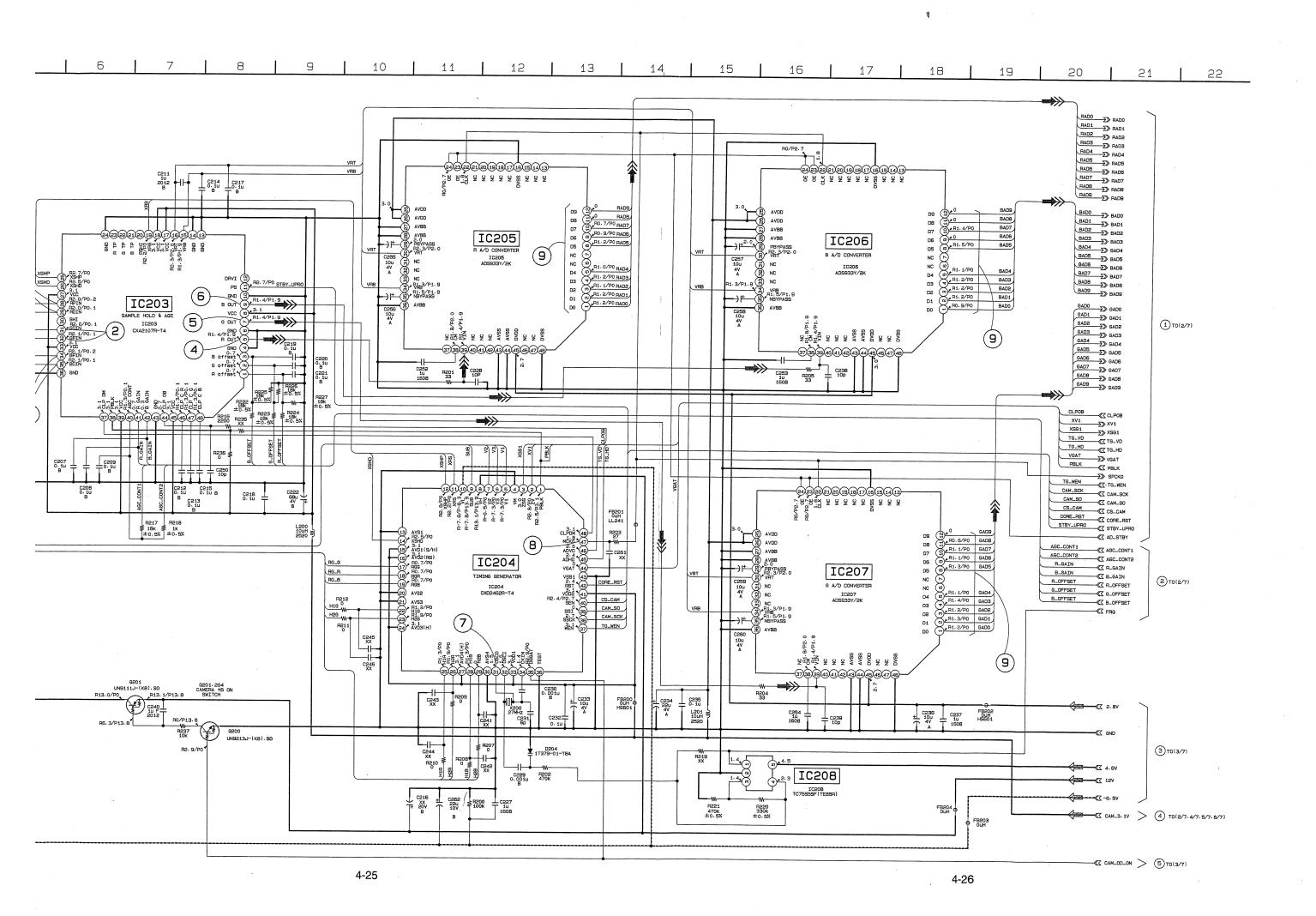
## VC-208 BOARD (SIDE B)

-20	08 BC	DARD (SI	IDE B)			
<b>-22</b> 12345678911234566789012790112301123456789011233456789011334578901123345679011234567890	D8 BC  E-133 E-132 E-1212 E-1212 E-132 E-133 E-134 E-135 E-1	C411	ID A-132122788B-1888-1888-1888-1888-1888-1888-1888-	IC302   IC305   IC351   IC352   IC354   IC355   IC356   IC357   IC400   IC701   IC722   IC751   IC755   IC759   IC760   IC1200   IC1200	BCCCCCCDBAABBBCAACAB DCDCDCCABBCABB EEBBCDDCBCABBACABBAAABBBAACBB DEDDCBCDDDDDDDDDDDDDDDDDDDDDDDDDDDDD	R300 R300 R300 R300 R300 R300 R300 R300
0	A-12	I IC301	C-11	1 R237	E-13	⊢ R723

VC-208	BOARD	(SIDE	B)

C201 C202 C203 C204 C205 C206 C207 C208 C209 C211 C212 C213 C214 C215 C216 C216 C217 C229 C230 C221 C222 C233 C240 C221 C222 C233 C240 C241 C242 C243 C244 C245 C246 C247 C248 C240 C241 C242 C243 C241 C245 C246 C247 C248 C249 C250 C303 C304 C310 C355 C355 C3557 C358	E-13 E-13 E-12 E-12 D-12 D-12 D-12 D-12 D-13 D-12 D-13 D-12 D-13 D-12 D-14 D-13 D-12 D-14 D-15 D-14 D-15 D-17 D-17 D-18 D-19 D-19 D-19 D-19 D-19 D-19 D-19 D-19	C411	IC302 B-11   IC355 C-15   IC352 C-15   IC354 C-13   IC356 C-14   IC357 D-14   IC721 B-18   IC722 B-17   IC751 B-13   IC755 A-13   IC755 A-13   IC755 A-13   IC755 A-13   IC750 C-12   IC760 A-14   IC1200 B-15     L200 D-13 L300 D-13 L300 C-11   L301 D-12   L351 C-15   L352 D-14   L400 C-12   L754 C-15   L1201 B-17   L1202 B-16   L1201 B-17   L1202 B-16   L1203 A-16   L1204 B-16   L1204 B-16   L1205 B-14   IC352 D-14   IC352 D-14   IC352 D-14   IC353 D-15   IC353 D-15   IC354 C-15   IC353 D-15   IC354 C-15   IC353 D-15   IC354 C-15   IC355 C-12   IC300 A-16   IC301 B-16   IC302 B-16	R300	R762 A- R763 C- R764 B- R7864 B- R787 A- R788 A- R788 A- R788 A- R787 A- R798 C- R796 C- R797 C- R804 A- R805 A- R806 A- R809 C- R911 B- R912 C- R913 B- R914 C- R913 B- R914 C- R913 B- R914 C- R915 B- R916 C- R917 B- R916 C- R917 B- R916 C- R917 B- R918 C- R921 C- R922 C-	-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
C231 C232 C233 C240 C241 C242 C243	E-11 D-12 D-12 E-13 E-12 E-12 D-12	C759 B-15 C761 A-13 C769 C-12 C770 C-12 C771 C-12 C772 A-14 C1200 B-16	L400 C-12 L754 C-15 L1200 A-16 L1201 B-17 L1202 C-16 L1203 A-16 L1204 B-16	R335 A-11 R336 A-11 R350 C-13 R353 D-14 R355 D-14 R355 D-14	R762 A- R763 C- R764 B- R781 A- R782 A- R783 A-	-14 -14 -14 -13 -13
C245 C246 C247 C248 C249 C250	D-12 D-12 E-11 D-11 D-11 D-12	C1202 B-16 C1203 B-17 C1204 A-16 C1205 B-16 C1206 A-15 C1207 B-16	Q200 E-13 Q201 E-13 Q301 B-12 Q351 C-14 Q352 D-14 Q353 D-15	R358 D-15 R359 C-15 R360 D-15 R361 D-15 R362 C-15 R363 D-15 R364 C-15	R785 A- R786 A- R787 A- R793 A- R794 C- R795 C- R796 C-	-13 -13 -13 -12 -12
C262 C302 C303 C305 C306 C307 C308	D-11 C-11 C-12 A-10 A-10 A-10 C-12	C1209 A-16 C1210 B-16 C1211 A-16 C1212 B-14 C1213 A-15 C1214 A-15 C1215 B-16	Q354 C-15 Q727 B-18 Q751 C-13 Q752 C-14 Q753 B-14 Q754 C-14 Q755 C-12	R365 D-15 R366 D-15 R367 D-14 R368 D-14 R369 C-14 R370 C-14 R371 C-14	R797 C- R804 A- R805 A- R806 A- R809 C- R911 B- R912 C-	-12 -14 -14 -12 -15 -15
C310 C311 C351 C353 C354 C355 C357	A-10 C-18 D-15 D-15 D-15 D-15 C-15	C1217 A-15 C1218 A-15 C1219 A-16 C1220 A-16 C1221 A-15 C1222 A-15 C1223 A-16	Q1201 B-16 Q1202 B-16 Q1203 A-16 Q1204 A-16 Q1205 B-16 Q1206 B-16 Q1207 A-15	R373 C-14 R374 C-13 R375 D-13 R376 D-14 R377 C-13 R378 D-13 R379 D-13	R914 C- R915 B- R916 C- R917 B- R918 C- R920 C- R921 C-	-16 -16 -16 -16 -16 -17
C359 C360 C361 C362 C368 C370 C371	C-14 D-14 C-14 C-14 C-12 D-13 D-13	C1225 B-15 C1226 B-16 C1227 B-16 C1228 B-16 C1229 A-16 C1230 B-16 C1231 B-15	Q1209 B-16   R200 D-11   R202 E-11   R203 D-11   R207 E-12   R208 E-12	R381 C-13 R382 C-13 R383 C-13 R384 D-13 R385 D-13 R386 D-13 R387 C-14	R1202 B- R1203 B- R1204 B- R1205 A- R1206 A- R1207 B- R1208 B-	-1; -16 -16 -17 -16 -16 -16
C372 C373 C374 C375 C376 C377 C379	D-13 C-13 C-13 C-13 C-14 C-14 D-14	C1232 B-14 C1233 B-15 C1234 B-15 C1235 C-15 CN900 C-17	R209 D-12 R210 E-12 R211 D-12 R212 D-12 R213 E-11 R214 D-11 R215 D-11	R389 D-16 R390 C-16 R391 D-15 R392 D-15 R393 C-14 R394 C-14	R1210 A- R1211 A- R1212 B- R1213 B- R1214 A- R1216 B-	,-10 ,-10 ,-10 ,-10 ,-10
C380 C381 C382 C383 C400 C401 C402	C-13 D-14 D-15 D-15 B-12 B-13 A-13	D204 E-11 D723 C-18 D724 C-18 D1200 C-16 D1201 C-15 FB200 D-12	R216 D-12 R217 E-12 R218 D-12 R219 D-13 R220 D-13 R221 D-14 R222 D-12	R395 D-14 R396 D-13 R400 B-12 R401 B-13 R402 B-13 R403 B-12 R404 B-12	R1218 B- R1219 A- R1266 B- R1267 B- R1268 B-	(-1) (-1) (-1) (-1) (-1) (-1)
C403 C404 C405 C406 C407 C408 C409	B-12 B-12 B-12 B-12 B-12 A-13 A-12	FB201 D-11 FB203 E-13 FB204 E-14 IC203 D-13 IC204 D-11 IC208 D-14	R223 D-12 R224 D-12 R225 D-12 R226 D-12 R227 D-12 R235 E-12 R236 E-12	R405 B-12 R406 B-12 R407 B-13 R408 B-12 R409 B-12 R721 B-18 R722 B-18	R1271 C X1200 C X200 E X300 C	3-1 3-1 3-1 3-1





For schematic diagram • Refer to page 4-17 for printed wiring board. 14 15 16 17 18 19 8 9 10 11 | 12 13 5 6 VC-208 BOARD(2/7) CAMERA PROCESSOR(CA BLOCK) NO MARK:REC/PB MODE R :REC MODE P :PB MODE -REF. NO. : 10000 SERIES-XX MARK: NO MOUNT RADO >> RADO RAD1 RAD2 >> RAD2 RAD3 >> RAD3 В RAD4 RAD4 ∑≫— R330 ≱ R329 RAD5 RAD5 ∑>-RAD6 S RAD6 RAD7 ∑> RAD9 RAD9 ∑≫-BAD0 ∑ BAD0 BAD1 ∑ BAD1 BAD2 SAD2

BAD3 SAD3 C305 0. 1u B BAD4 >>> BAD4
BAD5 >>> BAD5 1.3 AVSS
VAP\_PITCH\_A/D
1.3 VAP\_YAM\_A/D
R0. 5/P0. 2 HALL\_A/D
0.2 ND\_HALL\_A/D
0.2 ND\_HALL\_A/D
0.2 ND\_HALL\_A/D
0.2 ND\_HALL\_A/D CORE\_RST BAD6 S BAD6 STBY\_UPRO BAD7 ∑ BAD7 VSS CE PIE B VAP\_DD\_ON R320 2200 C310 0. 1u BAD9 ∑ BAD9 C\_RESET \* GADO GADO SADO GAD1 SADO 1 TO(1/7) 1.8 75 VD

MCK 1.8 77 VD

RADS 0,93 RINS

RADS 0,80 RINS

RADS 18.1.2/PO 88 RINS

RADS 18.1.2/PO 88 RINS

RADS 18.2/PO 89 RINS

RADS 18.2/PO 99 BINS

BADS 0,99 BINS

BADS RI.1/PO 99 BINS

BADS RI.1/PO 99 BINS

BADS RI.1/PO 99 BINS

BADS RI.2/PO 99 BINS

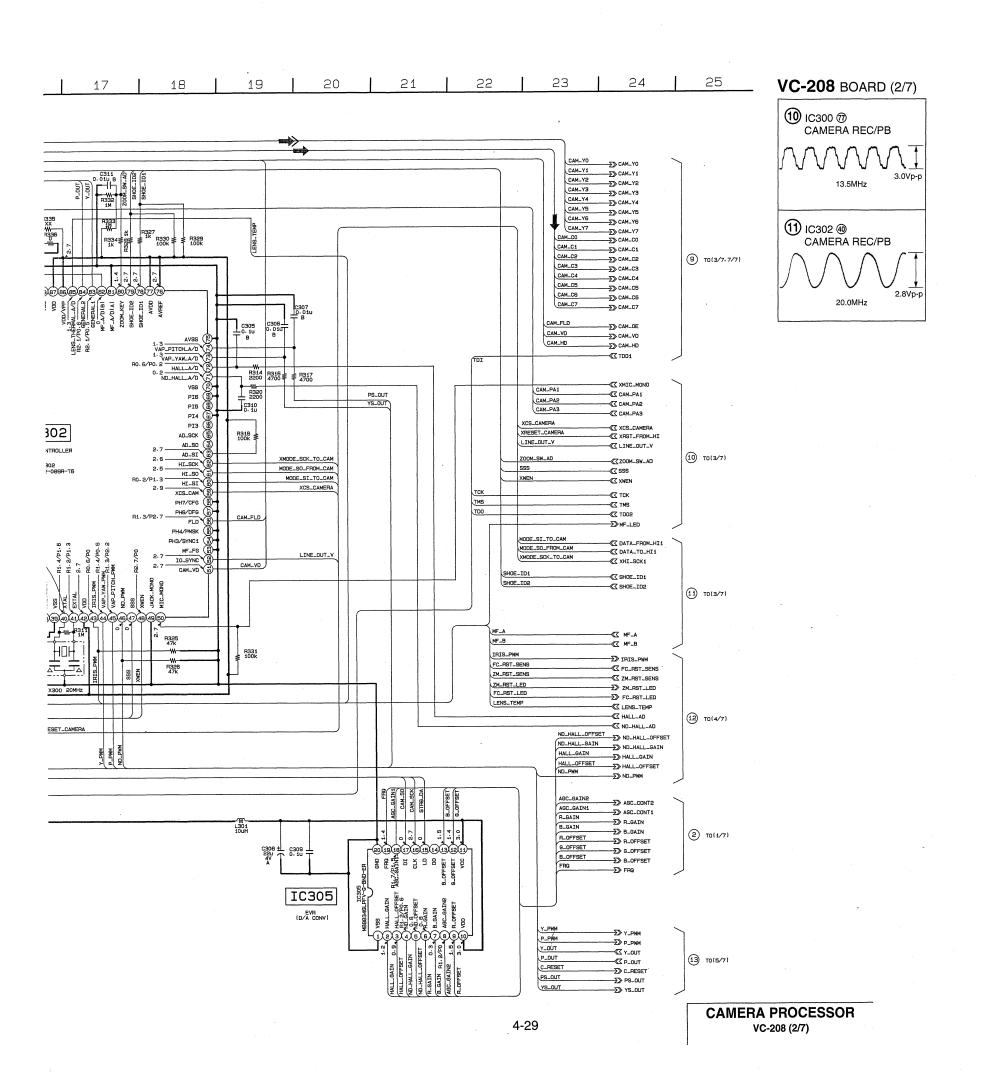
BADS RINS RINS

BADS RINS RINS RIN GAD2 

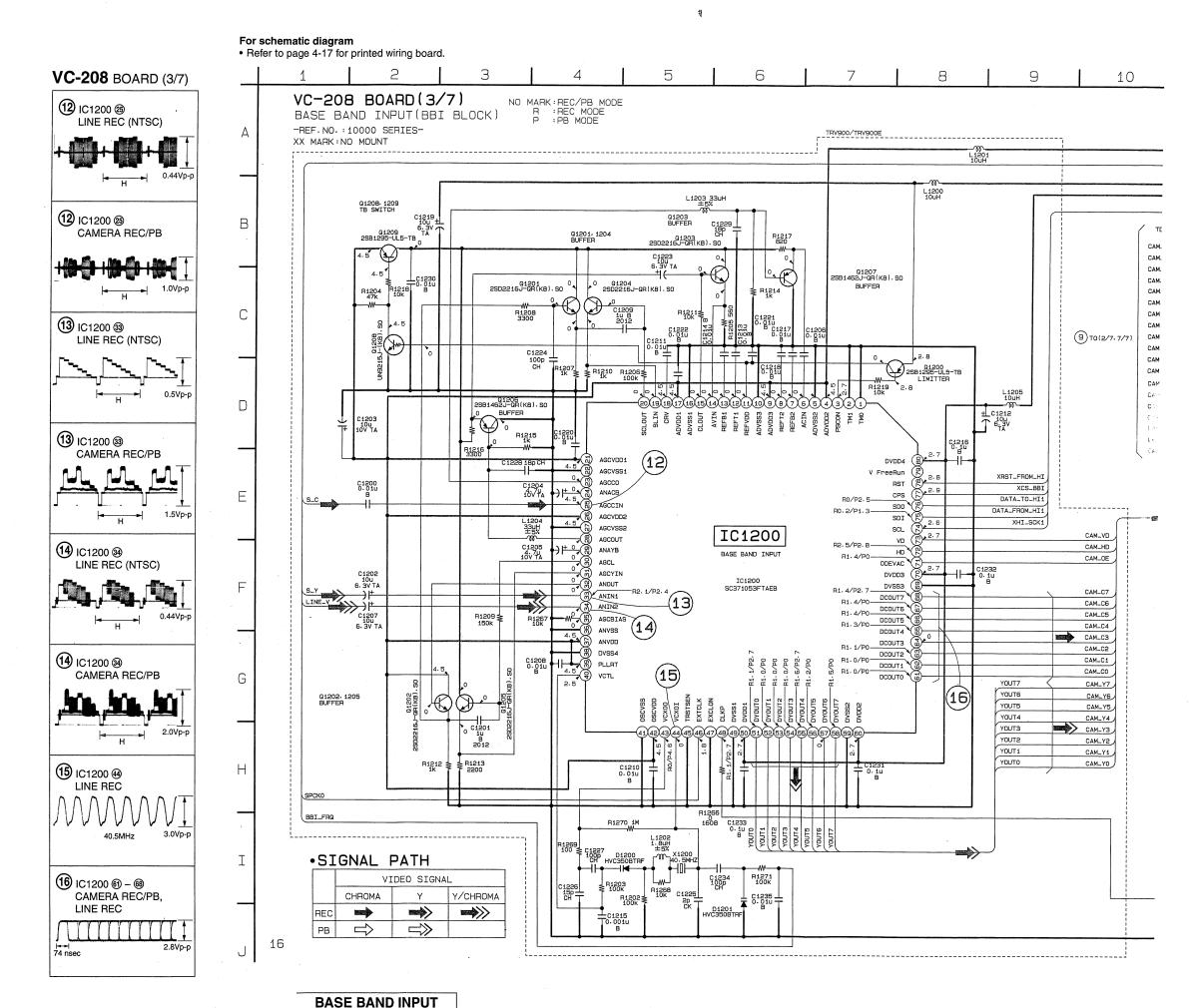
GAD2

GAD3

GAD4 різ (🖁 12. 5/P2. 7 VD (80) 2-7 HD (49) SND (47) 1. 8 BCK (47) 1. 8 BCK (47) 2-7 YOUT (45) YOUTH CAM\_VD CAM\_HD 3/P2 3/P2 3/P4 IC302 SOFT\_V AD\_SCK BAD\_SD BAD\_SD BAD\_SD R318 ≱ GAD4 ∑ GAD4 GAD4 ∑ GAD5 GAD5 ∑ GAD5 R319 XX GAD6 ∑> GAD6 2.5 HI\_SCK ZM\_RST\_LED FC\_RST\_LED GAD7 ∑ GAD7 R0/P0.2 Q301 UN9211J-(KB).S0 GADB ∑ GADB R0.2/P1.3 ---R1. 2/P0 YOUT6 44 CAM\_Y6 HI\_SI & R1. 2/P0 YOUTS (4)
R1. 8/P2. 7 YOUTS (4)
R1. 1/P0 YOUT3 (4)
R1. 1/P0 YOUT2 (4)
R1. 0/P0 YOUT3 (3)
R1. 0/P2. 7 YOUT0 (3) CAM\_Y5 GAD9 SAD9 ② ZOOM\_RST\_ZONE\_SENSER
— ② ZOOM\_RST\_EDGE\_SENSER
— ② FOCUS\_RST\_SENSER PH7/CF6 (B)
PH6/DF8 (b)
FL0 (B)
PH3/SYNC1 (B)
PH3/SYNC1 (B)
2.7 IO\_SYNC (B)
2.7 CAM\_VD (B) CAM\_Y4 PH7/CFG Q301 LED DRIVE SPCK0 ∑≫ FC\_RST\_SENS IC300 CAM\_Y2 XND\_ON\_SW MF\_B 2.7 CLPOB CLPOB «~ CAMERA Y/C SEPARATOR CAM\_YO XV1 XV1 ∑> 9007 (38)
91. 3/P0. 7 (77)
91. 3/P0 (77)
91. ES PE1 PE3 XSG1 TG\_VD XSG1 53-CAM\_C7 TC300 TG\_VD >> CAM\_C6 CAM\_VD TG\_HD VGAT CXD3116AR-T6 TG\_HD ∑≫-VGAT ∑> CAM\_C4 PBLK IC301 R301 47k PBLK ∑> CAM\_C3 CAM\_C2 CAM\_SCK CAM\_SCK CAM\_C1 CAM\_C0 CAM\_SO CAM\_SO CZ-CS\_CAM CS\_CAM ( VDD 28-CORE\_RST R325 47k CORE\_RST << R304 100k AD\_STBY R331 100k AD\_STBY AD\_STBY @Z-0. 1u TG\_WEN VAP\_DD\_ON 6 TO(5/7) < VAP\_DD\_ON < ← C300 0. 1u C302 0. 1u HO. 4/PO. H1. 4/PO. H1. 1/PO. H1. 1/PO. H1. 2/PO. H1. 2/PO. H1. 3/PO. IRIS\_COM < IRIS\_COM ENO ENO XRESET\_CAMERA L300 EN1 (9AD9 (9AD6 (9AD6 (9AD6 (9AD3 (9AD3 (9AD1 (9AD1 DIR\_OA 7 TO(4/7) DIR\_OA << DIR\_OB DIR\_1A DIR\_1A &7 A TE ST OF DIR\_1B (T DIR\_1B FB301 0uH HS601  $\overset{\text{\tiny 4)}}{\text{\tiny 5/7.6/7)}} \overset{\text{\tiny 10(1/7.4/7.}}{\text{\tiny 5/7.6/7)}} <$ CAM\_3. 1V 2 B T0(3/7) ·SIGNAL PATH VIDEO SIGNAL CHROMA Υ Y/CHROMA REC **\*\*\*** PB 16



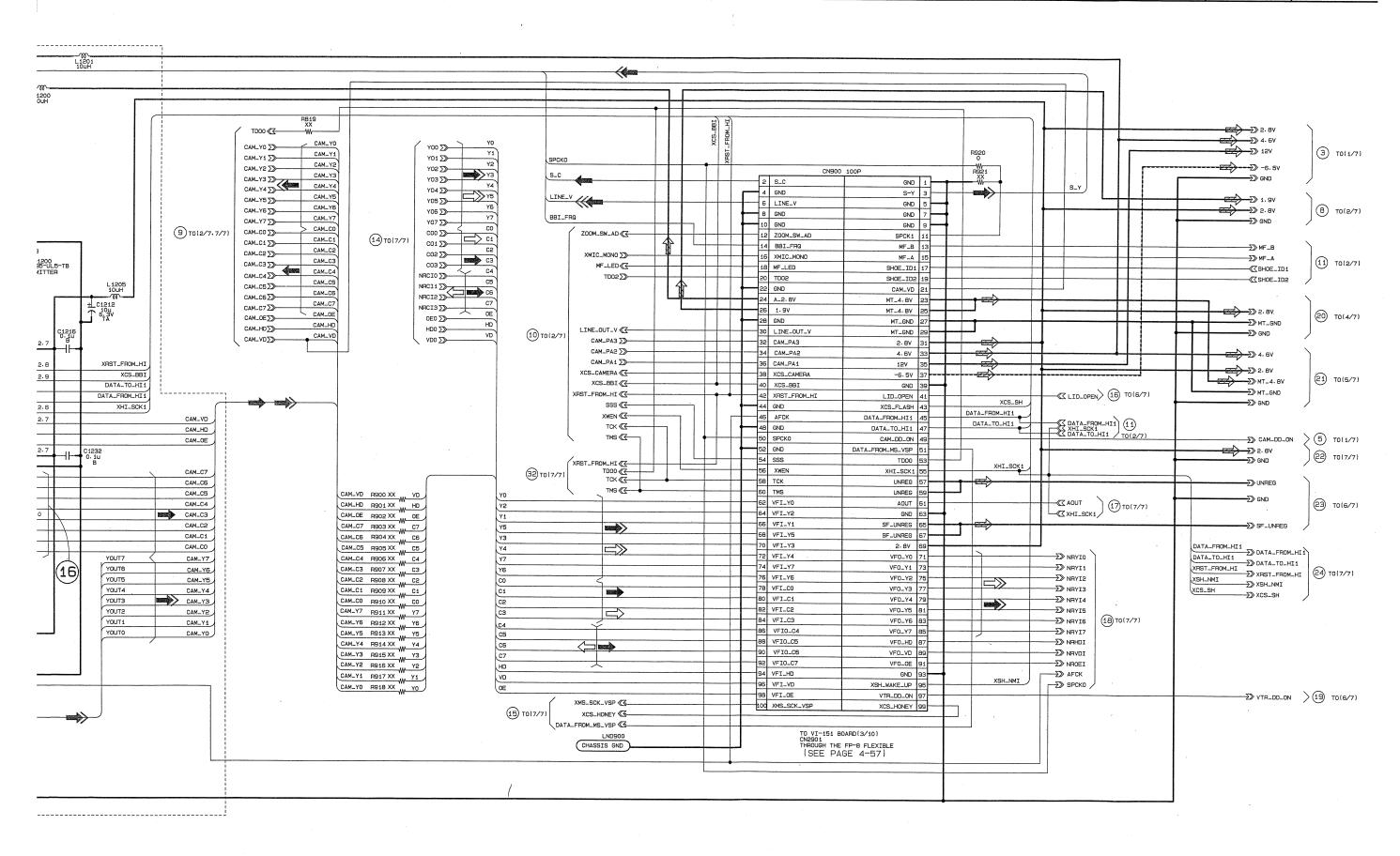
## DSR-PD100/PD100P



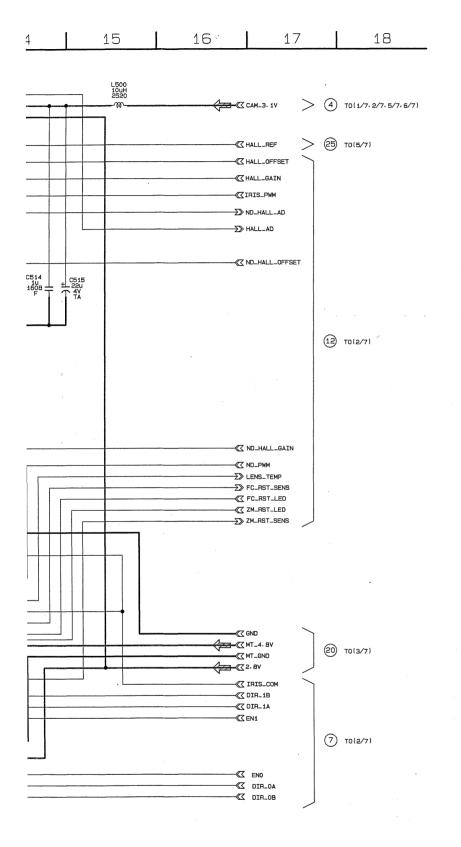
VC-208 (3/7)

4-32

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23



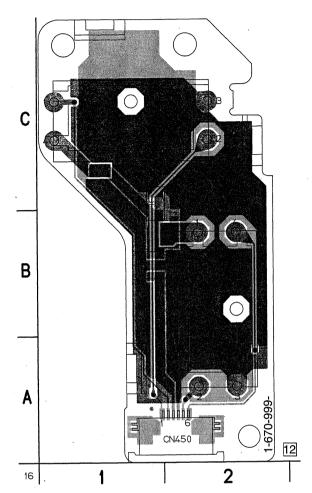
For schematic diagram • Refer to page 4-17 for printed wiring board. 2 3 5 7 8 9 4 6 10 11 12 13 14 15 16 L500 10uH 2520 VC-208 BOARD(4/7) MOTOR DRIVE(LD BLOCK) **€** CAM\_3. -REF.NO.:10000 SERIES-XX MARK: NO MOUNT R512 R513 2200 15k C507 0.22u 2012 B B H510 470k R510 470k R517 1k -≪Z HALL\_ NO MARK:REC/PB MODE R :REC MODE P :PB MODE -≪Z HALL\_( -≪Z HALL\_( В C506 W R516 C510 0.001u → HALL\_. D500 MA2S111-(KB).SQ OUT2 IN2-IN2-VCC IN1+ IN1-MD\_HAI C523 2200p | R535 | C526 2200p | A70k | C526 0.001u Q501 AMP IC501 HALL/IRIS DRIVER OUT3
IN3+
IN3+
GND
IN4+
IN4OUT4 D501 MA2S111-(KB) SO OUT2 IN2-IN2+ VCC IN1+ IN1-Q501 2SD2216J-QR(K8).SO 8 9 10 11 12 13 14 0.5/P0 N 8 7 7 7 7 R0/P2-E Q502 2SD2216J-QR(KB).SO IC502 Q503 AMP D HALL/IRIS DRIVER C500 0.01u B R502 0 2012 1/10w R509 220k 0.1 ₹ R518 ₹ R520 十<sup>C533</sup> MD.HA CN500 26P #2530 ¥ #2530 ¥ #1531 ¥ #1531 BIAS+ 26 R523 0 2012 1/10W --≪Z ND..PW HALL† 2 -∑ LENS\_ C521 R528 0-1u R528 BIAS-→ FC\_RS HALL- 2 -≪∑ FC\_AS R514 22k R519 22k DRIVE- 22 R538 330 --≪Z ZM\_RS DRIVE+ ND\_BIAS+ C528 2200p B R534 0.470 0.014 22k -2012 0.014 ND\_HALL+ ND\_BIAS-ND\_HALL-ND\_DRIVE- 16 LENS BLOCK ND\_DRIVE+ 15 R539 22k TEMP\_OUT ZM\_RST\_SENS 12 Q500 2SB1462J-QR(KB).SO G ZM\_SENS\_VCC 1 -≪7 GND **€** MT\_4. FC\_RST\_SENS 1 FC\_SENS\_VCC 9 R501 4700 --≪₹ MT\_GN FC\_A FC\_A 2. BV FC\_A 8 FC\_A FC\_B Q505 2SB1462J-QR(KB).S0 -≪ IRIS\_ FC\_B -≪ DIR\_1 IC500 C508 14 FC\_B 5 ZM\_B R500 ≱ R503 68k ≱ 68k -≪ DIR\_1 ZM\_B 4 -≪Z EN1 Н ZM\_B 3 ZM\_A L501 10uH 2520 ZM\_A 2 ZM\_A 1 Q500,505 ZM/FC VCC SWITCHING R545 4700 C518 FB501 OuH \* LENS BLOCK is replaced as a block-so that these SCHEMATIC DIAGRAM and PRINTED WIRING BOARD are omitted. -≪Z ENO -≪I DIR--≪I DIR-C502 0. g1u C517 33u 6-3V TA B FC\_B 16



# SE-75 (YAW/PITCH SENSOR) PRINTED WIRING BOARD

— Ref. No. SE-75 Board; 10,000 Series —

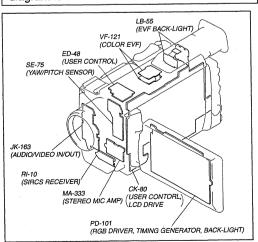
SE-75 BOARD (SIDE A)



## For printed wiring boards

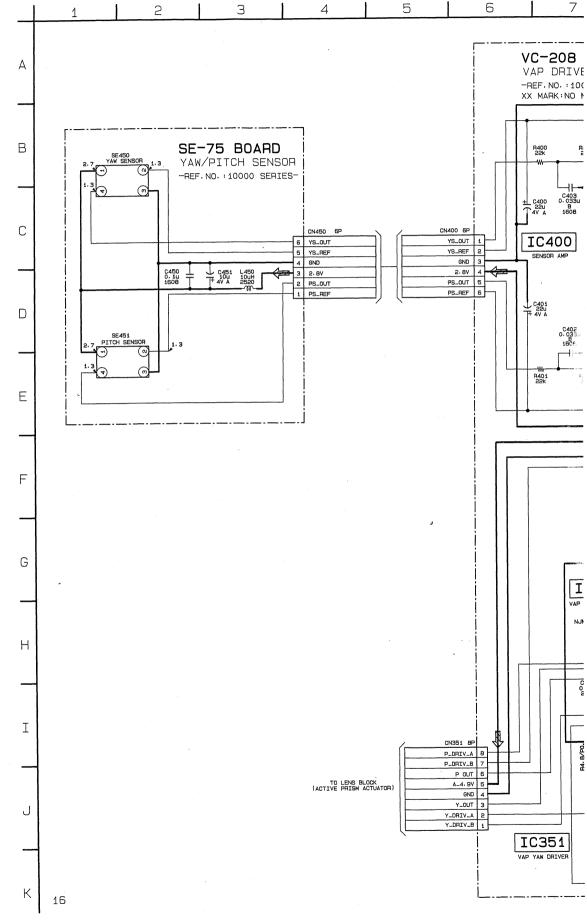
 This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.



# SE-75 BOARD

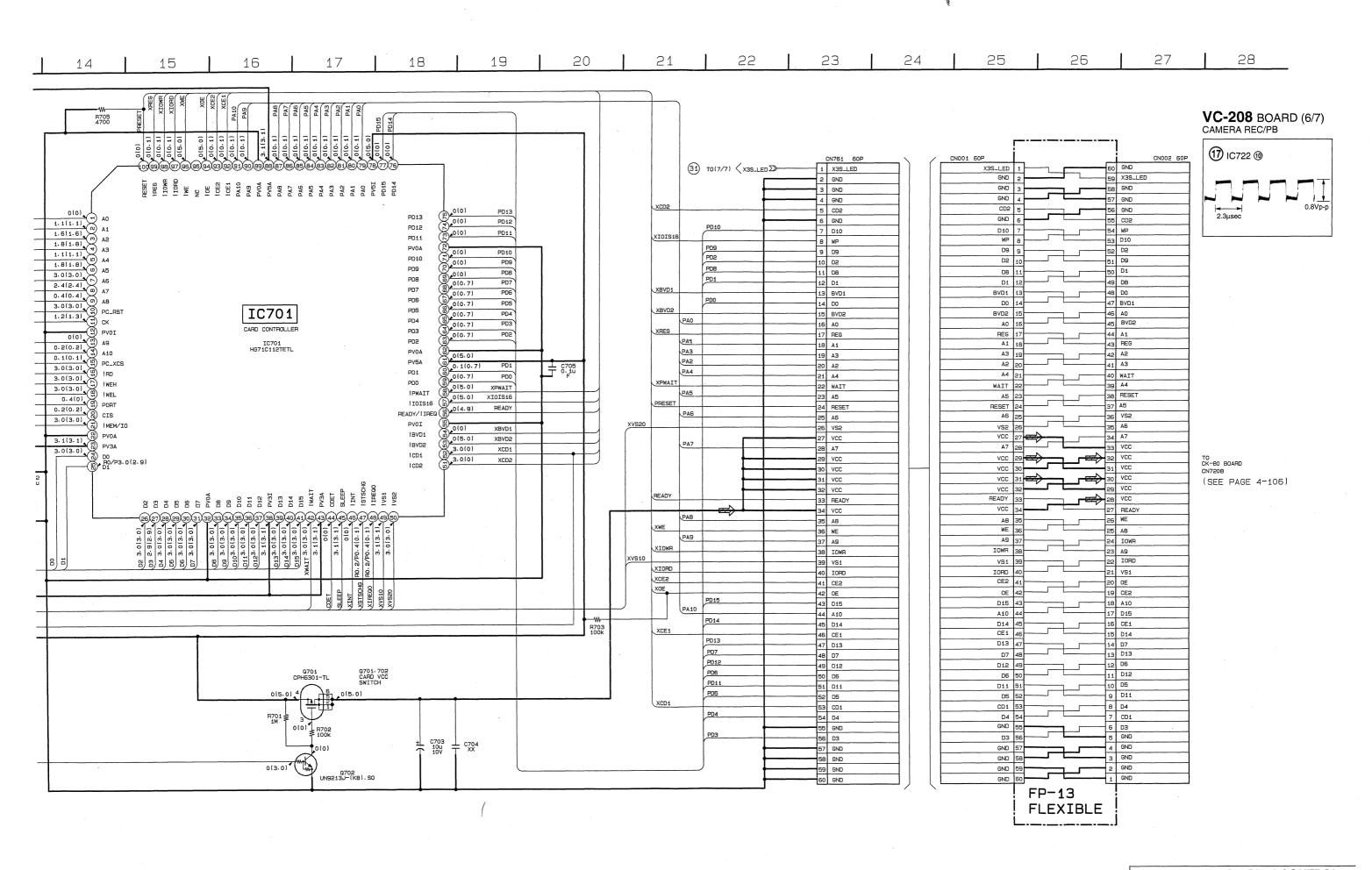
C450 B-2 C451 A-2 CN450 A-2 L450 B-1 SE450 B-2 SE451 C-1

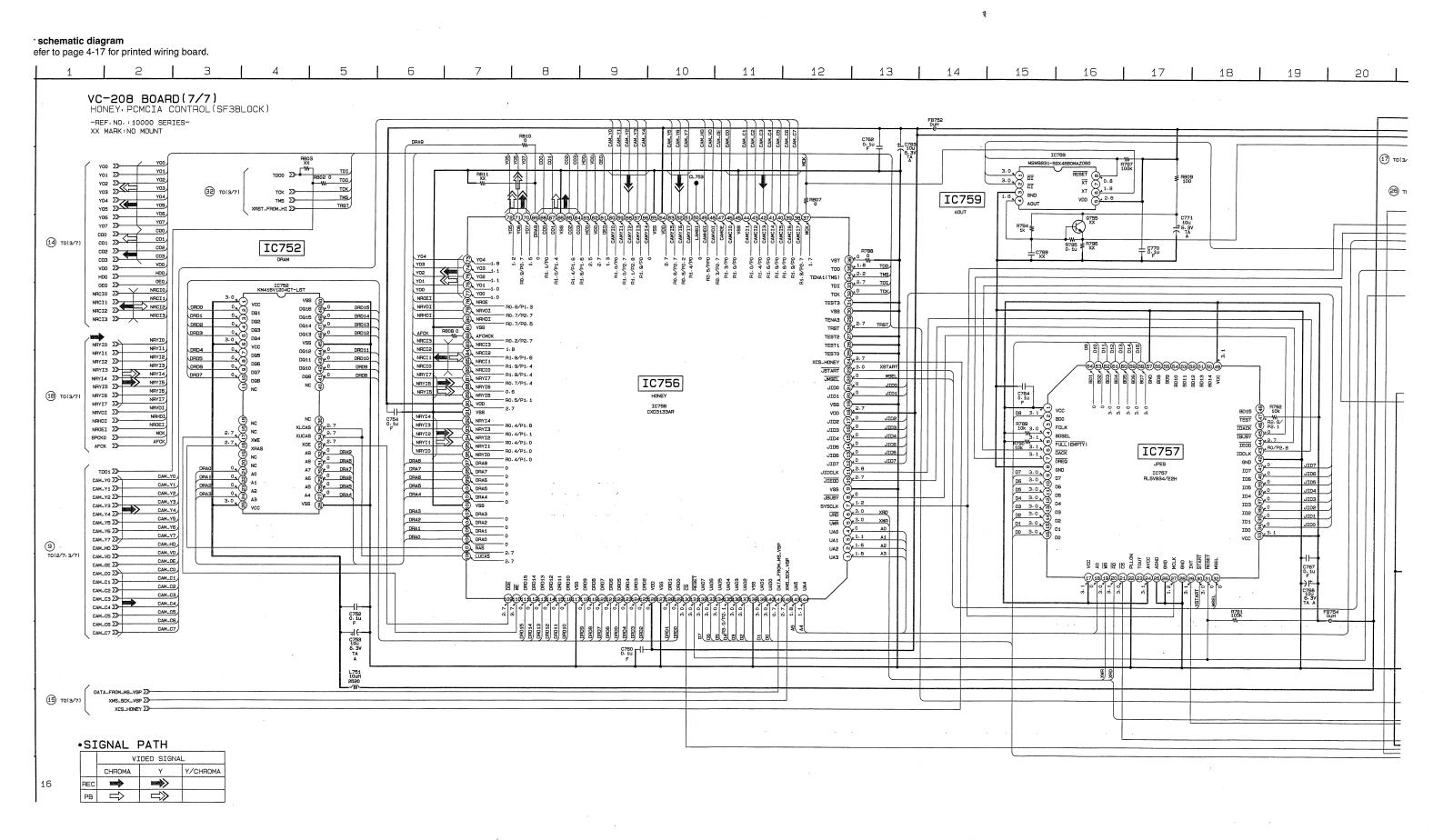


For schematic diagram
• Refer to page 4-17 for printed wiring board of VC-208.

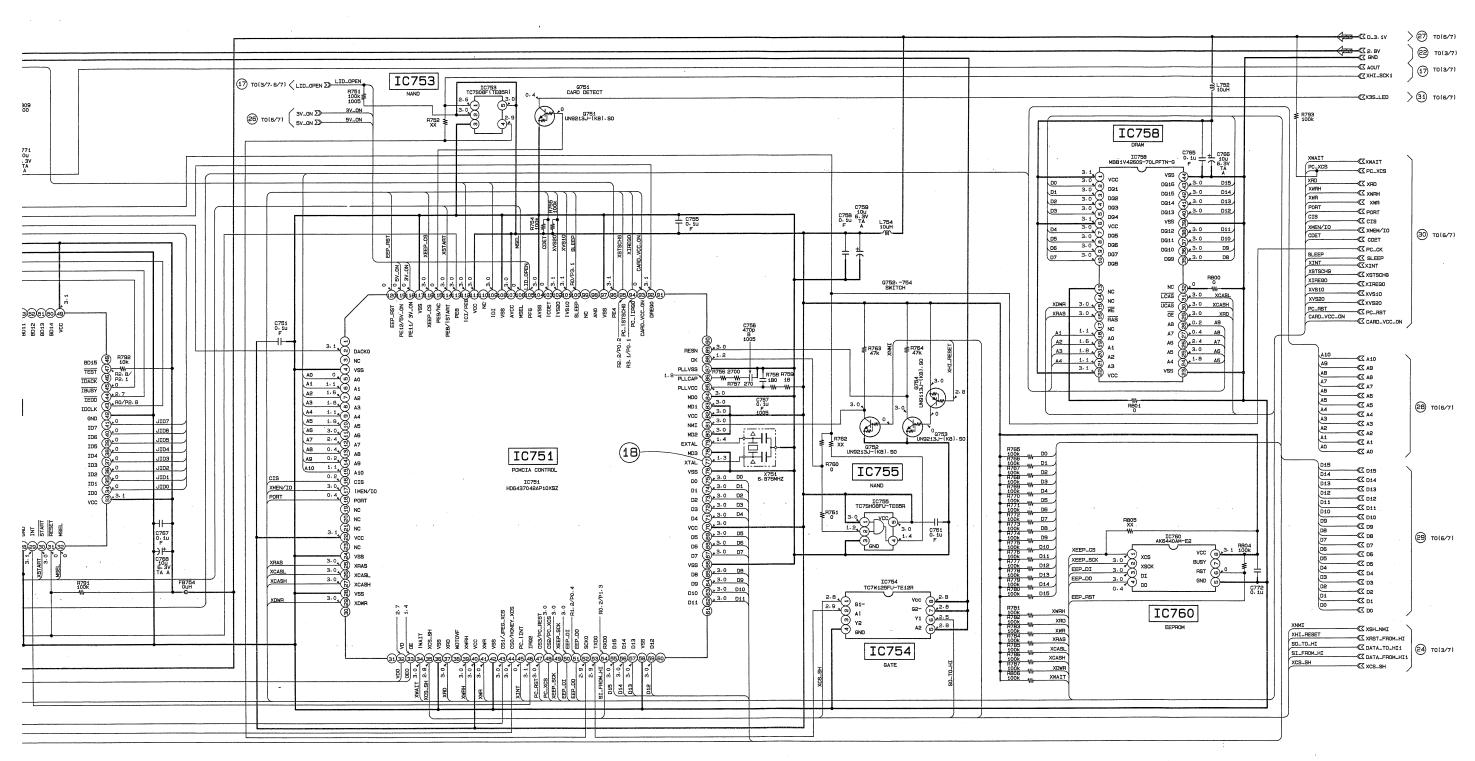
5 6 8 9 10 11 12 13 14 15 16 17 18 19 20 VC-208 BOARD(5/7) NO MARK: REC/PB MODE R : REC MODE P : PB MODE VAP DRIVER(VP BLOCK) -REF.NO.:10000 SERIES-XX MARK: NO MOUNT IC355 SN74HCT04APW-E20 R400 22k R403 22k -≪Z Y\_PWM C403 0.033u B 1608 P\_PWMI - R1. 4/P2.2 ± C400 22u 4V A P\_OUT (13) TO(2/7) --->>> Y\_0UT ---CZ C\_RESET IC355 YS YS\_OUT IC400 YS\_OUT 1 100uH 2520 Q351 2SB1462J-QR(KB).SO PS → ∑ PS\_OUT YS\_REF 2 YAW/PITCH PWM DRIVE SENSOR AMP GND 3 2.8V 4 PS\_OUT 5 PS\_REF 6 R387 R0. 1/P4. 5 1k R2. 7/P0 C401 F 4V A Q352 UN9213J-(KB).SO C408 C410 47u 47u 4V B 4V B R401 22k R402 22k ¥ R407 21) TO(3/7) ₹ R381 58k o. 0274 o. 0222u R382 66k C373 0.047u 1608 C355 R366 0.1u ±0.5% B2012 ±0.5% W-10.5% R363 R365 22k 47k 0.5% ±0.5% IC357 R383 68k R363 22k ±0.5% W R391 470k ±0.5% HALL DETECT MT\_4. 8V C375 3300p B —≪∑ MT\_GND CAM\_3. 1V > (4) TO(1/7. 2/7. 4/7. 6/7) ₹ 8371 47k ±0.5% IC352
VAP PITCH DRIVER
IC352
NJM3414AV(TE2)
VAP QUAL TO THE TOTAL T r<sup>®</sup>----R355 18k ±0.5% IC356 0.B IC354 →>> HALL\_REF > 25 TO (4/7) 0.8 H353 470 ±0.5% VAP Y/P DRIVE C379 1 0. 1u F R372 47k ±0.5% R362 R364 33k±0.5% 33k±0.5% → VAP\_DD\_ON > 6 TO(2/7) R392 22k ±0.5% C353 R361 0.1u 82012 ±0.5% C370 B300 B300 B384 B384 B384 B384 B385 B385 B385 B385 B385 B386 R368 150k R350 W 470k R360 47k ±0.5% ±0.5% R396 100k ±0.5% R2.7/P0 10k 1k 1k R0/P4. 8 R4. 1/ P4. 9 R376 100k R394 100k ≶ ±0.5% Q354 2SA1588-0Y-TE85L CN351 8P P\_DRIV\_A B P\_DRIV\_B 7 R4.8/P0.4 P OUT 6 Q353,354 /AP TB SWITCH R393 68k ±0.5% Q353 UN9215J-(KB). SO ENS BLOCK RISM ACTUATOR) A\_4.9V GND . H395 68k ±0.5% ## H2.2/P0.5 ## H2 Y\_OUT 3 Y\_DRIV\_A 2 C357 10u ± 6:3V TA A IC351

For schematic diagram • Refer to page 4-17 for printed wiring board. 2 3 5 7 8 6 9 10 11 12 13 14 15 NO MARK:REC/PB MODE R :REC MODE P :PB MODE ( ):PC CARD IN VC-208 BOARD(6/7) Д CARD CONTROL, PWM CONTROL R705 4700 (SF1/3,2/3BLOCK) -REF. NO. : 10000 SERIES-XX MARK: NO MOUNT Q721 Q721 5.0/3.3V REG CPH3106-PM-TL B.3) В SF\_UNREG ∑ IC721 A0 Σ> 1.1(1.1) A0 1.5(1.5) M A1 1.8(1.8) M A2 R735 XX 3216 A1 ∑> 8.3(8.0) C733 4.7u B 3216 АЗ ∑> 1.1(1.1) A3 1.8(1.8) 44 2.0(3.0) 45 A4 ∑> 3.0(3.0) A6 2B) TO(7/7) A5 Σ≫-C R728 ≥ 22k ±0.5% 2.4(2.4) @ A7 A6 ∑≫-0.4(0.4) 0 A8 Δ7 Σ>>-AB ∑>>− 3.0(3.0) 1.2(1.3) CK PC\_RST A9 ∑> A10 ∑> 0(0) PV0I 0.2(0.2) A9 0.1(0.1) A10 0.1(0.1) PC\_XCS R741 E R730 47k ±0.5% H741 47k ±0.5% Q727 SWITCH  $\mathsf{D}$ PC\_XCS 23 TO(3/7) D1 ∑> 3.0(3.0) PC\_XCS 3.0(3.0) PC\_XCS 1 PD 1 PD 1 WEH D2 \_\_\_\_ XRD XWRH рз ∑≫-XWR D4 Σ>> 0.4(0) PORT PORT 0.2(0.2) 00 CIS 3.0(3.0) 0 IMEM D5 ∑≫− D723 1SS388(TPL3) CIS H740 0 D6 ∑> XMEM/IO L727 4. 7uH D7 Σ>> IMEM/IO 29 TO(7/7) D8 ∑≫— 3.1(3.1) PVOA Я743 1М ₹ H744 100k pe ∑≫— TO(1/7, 2/7, 4/7, 5/7) PV3A 3.0(3.0) D10 D10 ∑> D1 D0 P3.0(2.9) D11 D11 ∑> D12 GND ∑> D12 🎞 D13 D13 ∑>─ IC722 D14 ∑> 02 04 05 05 07 07 08 D15 ∑> Q722 CPH3106-PM-TL L725 4.7uH L721 10uH 3.1(3.1) 8.2(8.2) UNREG ∑> D\_3. 1V > (27) TO(7/7) W R734 XX 3216 8.0(8.0) C736 4.7u B 3216 C734 4.7u B 3216 C740 ± 16 TO(3/7.7/7) < LID\_OPEN ∑> 8731 \$ 3900 ±0.5% РС\_СК ∑>-G XWAIT >>--PC\_XCS PC\_XCS ∑> XRD XRD ∑> XWRH , xwan ∑≫ R733 47k ±0.5% XWB. xwa ∑≫-PORT 2 PORT D CIS cis ∑> XMEM/IO ∑> XMEM/IO CDET CDET >>-30 TO(7/7) SLEEP SLEEP >>---(19) TO(3/7) < VTR\_DD\_ON >>> PC\_RST ∑ PC\_RST XINT XINT 🌫 XSTSCHG XSTSCHG ∑>---XIREQO XIREQO I XVS10 XVS10∑> xvs20 ∑ xvs20 CARD\_VCC\_ON∑> 16

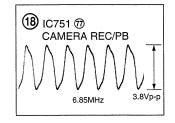




26 | 27 | 18 | 19 | 21 | 22 | 



# VC-208 BOARD (7/7)

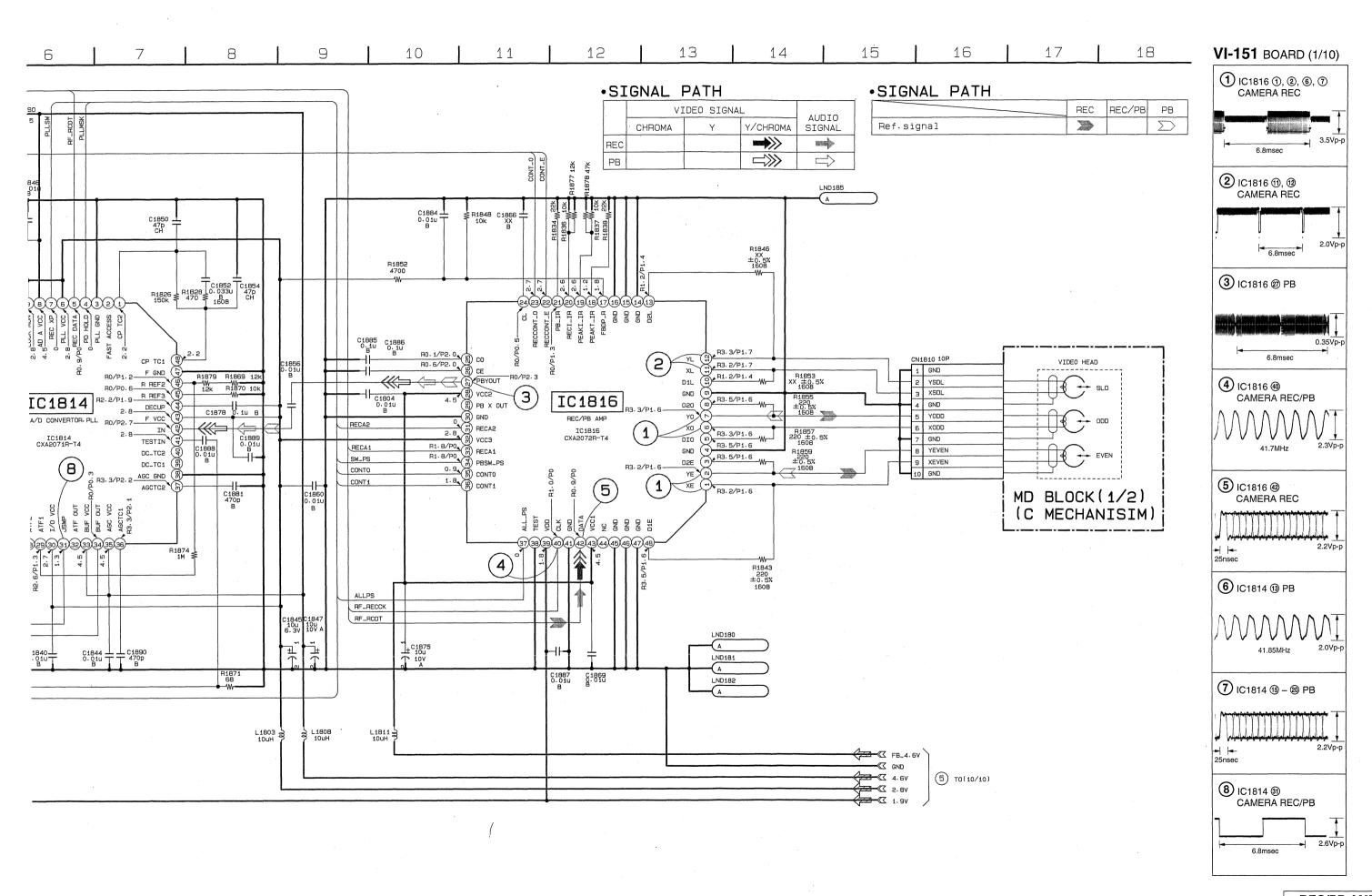


For schematic diagram • Refer to page 4-91 for printed wiring board. 2 3 5 4 6 8 9 10 1 1 12 13 14 •SIGNAL PATH VI-151 BOARD(1/10) VIDEO SIGNAL REC/PB AMP(RF1 BLOCK) AUDIO -REF.NO.:10000 SERIES-CHROMA Y/CHROMA SIGNAL XX MARK: NO MOUNT REC DOT  $\Rightarrow$  $\Rightarrow$ PΒ 1 TO(9/10) CAP\_EVR >> 1877 12k .878 47k R1876 ₹ REEL\_EVA REEL\_EVR S LND185 В DATA\_FROM\_MS\_DRP ∑> XCS\_TRF ∑> C1837 0.01u XSCK 2 TO(B/10) XMS\_SCK\_DAP ∑> REC\_CRRTO ∑ CONT\_E REC\_CRRT1 ∑> CONT\_0 XX ±0.5% 1608  $\mathbb{C}$ 24\23\22\21\20\19\18\17\16\15\14\1 RF\_RECCK **(6)** É RECCK ∑> 7 RECDT DESCRIPTION OF THE PROPERTY OF THE PROPE 1886 0.14 10.172.0 8 CO 10.672.0 8 CE PBYOUT 21904 4.5 8 VCC2 PB X C RECA1 ∑> R1872 | R0/P1.1 | G | CLK (PB\_41.85MHz) | G | CLK (PB\_ P3. 3/P1. 7 YL P3. 2/P1. 7 XL P1. 2/P1. 4 рвскз ∑≫ // DATA5 ADDT5 ∑> F GND (4) R1879 R1869 12k DATA4 DATA1 RO/P1.1 DATAO RO/PO. 6 R REF2 4 R1853 XX ±0.5% 1608 ADDT4 DATA4
ADDT3 DATA3 D DATA1 C1804 0.01u B R2.2/P1.9 R REF3 3 GND H3.5/P1.6 DATA2 DATA2 RO/P1.1 IC1814 DATA2 IC1816 2.8 DECUP ADDTS ∑≫ D20 3 TO(2/10) DATA3 RO/P1.2 DATA1 DATA0 DATA1 DATAS C1878 R0/P2.7 F VCC O GND

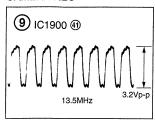
2. B RECA2

2. B VCC3 ADDT1 D EQ. A/D CONVERTOR, PLL Yo X REC/PB AMP RECA2 DATA4 DATA4 R0/P1.1 X0 B3.3/P1.6 ADDTO \$\sum\_ R1857 220 ±0.5% 1608 IC1816 DATA5 (R) DATA5 TESTIN 4 DIO (1) R3.3/P1.6 GND (4) R3.5/P1.6 CXA2072R-T4 SW\_PS SW\_PS >> H1. 8/PO HECA1

H1. 8/PO PBSW\_PS AD D GND 2.7 RECA1 CONTO R1859 220 ±0.5% 1608 R3.5/P1.6 CTRLO ∑≫ XSCK 1.8 DC\_TC1 (R) SW\_PS CONT1 D2E CTRL1 D 0. 9 (б) соито R3.2/P1.6 ., R3. 3/P2. 2 AGC GND CONTO ALLPS ALL\_PS >> 1. B CONT1 CONT1 AGCTC2 (m) PLLMSK C1833 0.01u B (1) (5) XE 📆 PLLMSK ∑> R3, 2/P1, 6 RECA2 RECA2 ∑> PLLSW PLLSW ∑> H1843 220 ±0.5% 1608 XCS REEL\_EV ALLPS RF\_RECCK RF\_RCDT C1845 10u 6.3V SWP >>> (4) TO(7/10) FF\_MON ∑> LND180 RF-IN/LANCJKIN ∑> G LND181 R1871 68 C1869 2.01u LND182 3 L1808 16



VI-151 BOARD (2/10) CAMERA REC

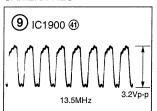


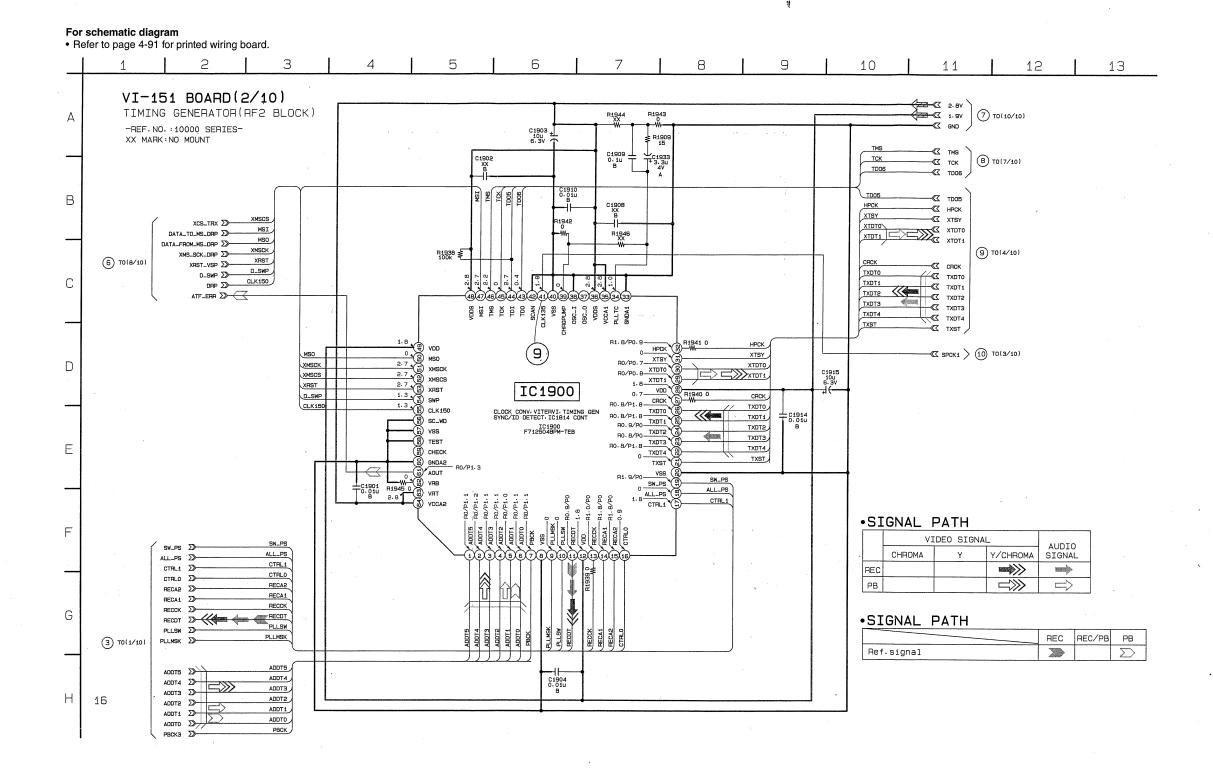
For schematic diagram

• Refer to page 4-91 for printed wiring board. 5 6 VI-151 BOARD(2/10) TIMING GENERATOR(RF2 BLOCK) Α -REF.NO.:10000 SERIES-XX MARK:NO MOUNT В XMSCS MSI DATA\_TO\_MS\_DRP >>---R1946 XX MSO DATA\_FROM\_MS\_DRP >>-XMSCK XMS\_SCK\_DRP ∑>-R1938 ₹ 6 TO(8/10) XRST XRST\_VSP ∑> D\_SWP D\_SWP

DRP CLK150 С ATF\_ERR ∑ R1.8/P0.9— 0— R0/P0.7— R0/P0.8—X 1.8—X 0 (P) VDU
0 (A) MS0
2.7 (F) XMSCK
2.7 (F) XMSCS
2.7 (F) XMSCS
3.3 (F) SWP 9 XMSCK XMSCS  $\mathsf{D}$ XRST IC1900 D\_SWP CLK150 0.7---0.7— R0.8/P1.8—T; R0.8/P0.8—T; R0.9/P0—T; R0.8/P0—T; R0.8/P0—T; 1.3 LD CLK150 CLOCK CONV. VITERVI. TIMING GET SYNC/ID DETECT. IC1814 CONT ® sc\_wo IC1900 F712504BPM-TEB E TEST (B) CHECK (B) GNDA2 H0/P1.3 0 GNDA2 0 GNDA2 0 GN AOUT 0 VRB 0 VRB 0 VRT 0 VCCA2 0 - Si 0 - ALL 1 . 8 - C sw\_ps ∑> ALL\_PS 🎞 CTRL1 CTRL1 D CTRLO ∑≫ RECA2 RECA2 ∑> RECA1 RECA1 ∑> RECCK RECCK ∑≫-G RECOT > RECOT PLLSW PLLSW 🌫 3 TO(1/10) PLLMSK ∑≫ ADDT5 ADDT5 C1904 0.01u B ADDT4 ADDT4 D ADDT3 Н 16 ADDT2 ADDT2 DADDT1 DADDT0 DADDT0 ADDT1 ADDTO

VI-151 BOARD (2/10) CAMERA REC





• Refer to page 4-91 for printed wiring board. 3 8 9 10 1 1 12 13 14 15 16 17 18 VIDEO INTERFACE(VFD BLOCK)

REF. No. 14000 255555 VI-151 BOARD(3/10) -REF.NO.:10000 SERIES-Q1500 B BUFFER Q1501 R BUFFER XX MARK: NO MOUNT Q1500 2SD2216J-QR(KB).SO Q1501 2SD2216J-QR(K8). VFD\_2. 8V ∑ 1.9V >>> A\_2. BV 2 R1516 R1521 ★ 680 ₹ 330 R1514 470 C1512 + C1503 + C1503 TA MT\_GND ∑> ≪S\_YIN ≪S\_CIN (15) TO(5/10) GND 🌫 Crive-Ain / MT\_4. 8V ∑> (SEE PAGE 4-34) 2. 8V >>> 4. 6V >>> 2. BV 🏂 TO VC-208 BOARD(3/7)
(THROUGH THE FP-8 FLEXIBLE) (4B) TO(10/10) CN2901 100P —≪BBI\_FAQ > (16) TO(5/10) Q1502 2SD2216J-QR(KB 1 6ND
1 6ND
3 S-Y
5 6ND
7 6ND
9 6ND
11 SPCK1 11 S\_C 2
GND 4
LINE\_V 6 (10) Q1502 Y BUFFER (18) TO(4/10) (L1.9V ∑>-L2.8V ∑>-SF\_UNREG >> GND B GND R1512 4700 CL2901 SPCK1 (( R1509 4700 ≸ 10 TO(2/10) < ZOOM\_SW\_AD ZOOM\_SW\_AD 12 MF\_B MF\_A BBI\_FRQ 14 XMIC\_MONO 15 MF\_A 17 SHOE\_ID1 XMIC\_MOND 16 11) TO(4/10) SHOE\_ID1 ( MF\_LED R1518 XX MF\_LED 1 SHOE\_ID2 << TD02 TD02 20 19 SHOE\_ID2 GND 22 23 MT\_4.8V 25 MT\_4.8V A\_2.8V 24 1.9V 26 VBUSG
VBUSG R1515 4700 D 27 MT\_GND 29 MT\_GND 31 2.8V 33 4.6V GND 28 LINE\_OUT\_V 30 CAM\_PA3 CAM\_PA3 LVDD3 33 4. 35 12V 37 -6.5V CAM\_PA2 VSS5 CAM\_PA2 PVSS CAM\_PA1 HVDD3 CAM\_PA1 36 PVDD XCS\_CAMERA PLLTES XCS\_CAMERA HVDD2 XCS\_BBI 39 GND 41 LID\_OPEN XCS\_BBI TEST VSS3 LID\_OPEN TRCKI XRST\_FROM\_HI 42 TSCKO XCS\_FLASH
DATA\_FROM\_HI1 TRCKO GND 44 AFCK 46 43 XCS\_FLASH F358 AFCK 45 DATA\_FROM\_HI1 VSS6 DATA\_TO\_HI1 DPVD 47 DATA\_TO\_HI1 GND 48 VREF DPHD CAM\_FLD CAM\_DO\_ON 49 CAM\_DD\_ON
51 DATA\_FROM\_MS\_VSP OEI SPCKO 50 IC1501 AFCK GND 52 SPCK 12 TO(7/10) < TD00 ∑> 53 TOO0
55 XHI\_SCK1
57 UNREG
59 UNREG SSS VBUS0 SSS 54 LVDD4 LVDD1 VIDEO INTERFACE XHI\_SCK1 XWEN XWEN 5 VSS7 VSS2 VBUS1 TCK ! CAM\_HD VI IC1501 VBUS2 TMS , M65511WG-600D TMS CAM\_C7 61 AOUT 63 GND 65 SF\_UNREG 67 SF\_UNREG 69 2.8V 71 VFO\_VO 75 VFO\_Y1 (13) TO(6/10) < AOUT ∑> CAM\_YO VFI\_Y0 E CIOB3 VBUS3 CAM\_C6 CAM\_Y2 VFI\_Y2 6 CAM\_C5 CIOBS VBUS4 ⋘≔ CAM\_Y1 Y05 (P) Y04 (P) Y03 (P) CIOB1 VFI\_Y1 CAM\_C4 CAM\_Y5 СІОВО VBUS5 VFI\_Y5 CAM\_Y3 SCAN VFI\_Y3 CAM\_Y4 VBUS6 VFI\_Y4 TDO F\_Y1 F\_Y0 LINE\_OUT\_V TDI F\_Y1 CAM\_Y7 TDI VBUS7 VFI\_Y7 G TCK F\_Y2 CAM\_Y6 75 VF0\_Y2 77 VF0\_Y3 VFI\_Y6 Y00 F\_Y3 TUVS CAM...CO VFI\_CO 7 DATA\_TO\_MS\_VSP OSDVD CAM\_C1 CAM\_C2 CAM\_C3 F\_Y4 79 VF0\_Y4  $\Rightarrow$ VFI\_C1 8 DATA\_FROM\_MS\_VSP XVEN OSDHD F\_Y5 81 VF0\_Y5 83 VF0\_Y6 85 VF0\_Y7 87 VF0\_HD VFI\_C2 8 OSDL XMS\_SCK\_VSP F\_Y6 VFI\_C3 8 XCS\_VFD OSDP F\_Y7 CAM\_C4 XMCS VFIO\_C4 E CAM\_C5
CAM\_C6 COL3 F\_HD VFIO\_C5 E VSSB HVDD1 F\_VD 89 VF0\_VD 91 VF0\_0E HVDD4 VFI0\_C6 9 F\_0E0 CAM\_C7 VFI0\_C7 92 VFI\_HD 94 CL2903 CAM\_VD 93 GND XSH\_WAKE\_UP 95 XSH\_WAKE\_UP VFI\_VD 96 VTR\_DO\_ON 2904 CAM\_FLD 97 VTR\_DD\_ON 99 XCS\_HONEY VFI\_OE 98 XMS\_SCK\_VSP 100 0 (2) BLKC GND (3) NC TEST (6) (2) BLKB OSC (8) 1.8

0 (7) VC3 OSC (7) 1.8

0 (8) VBLA CMDCT (8) 3.0

0 (9) VC2 VDD (7) 2.8

0 (9) VC0 DATA (7) 0.1

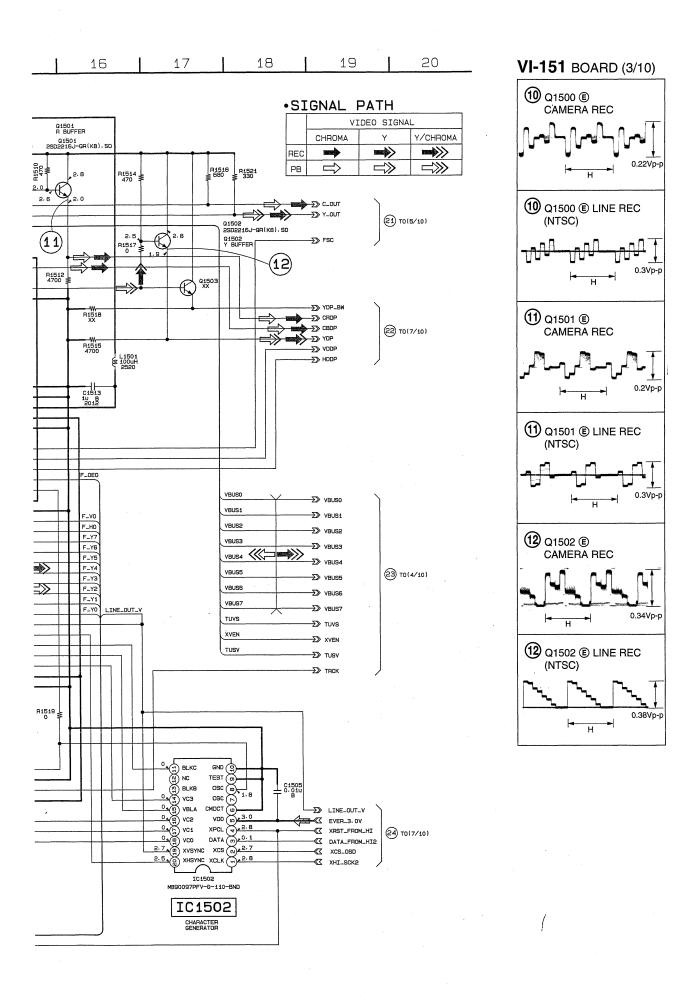
2.7 (9) XVSYNC XCS (8) 2.7

2.5 (8) XHSYNC XCS (8) 2.7 XRST\_VSP CAM VD & LID\_OPEN MF\_A ∑>-LID\_OPEN 🌫 MF\_B S MF\_B

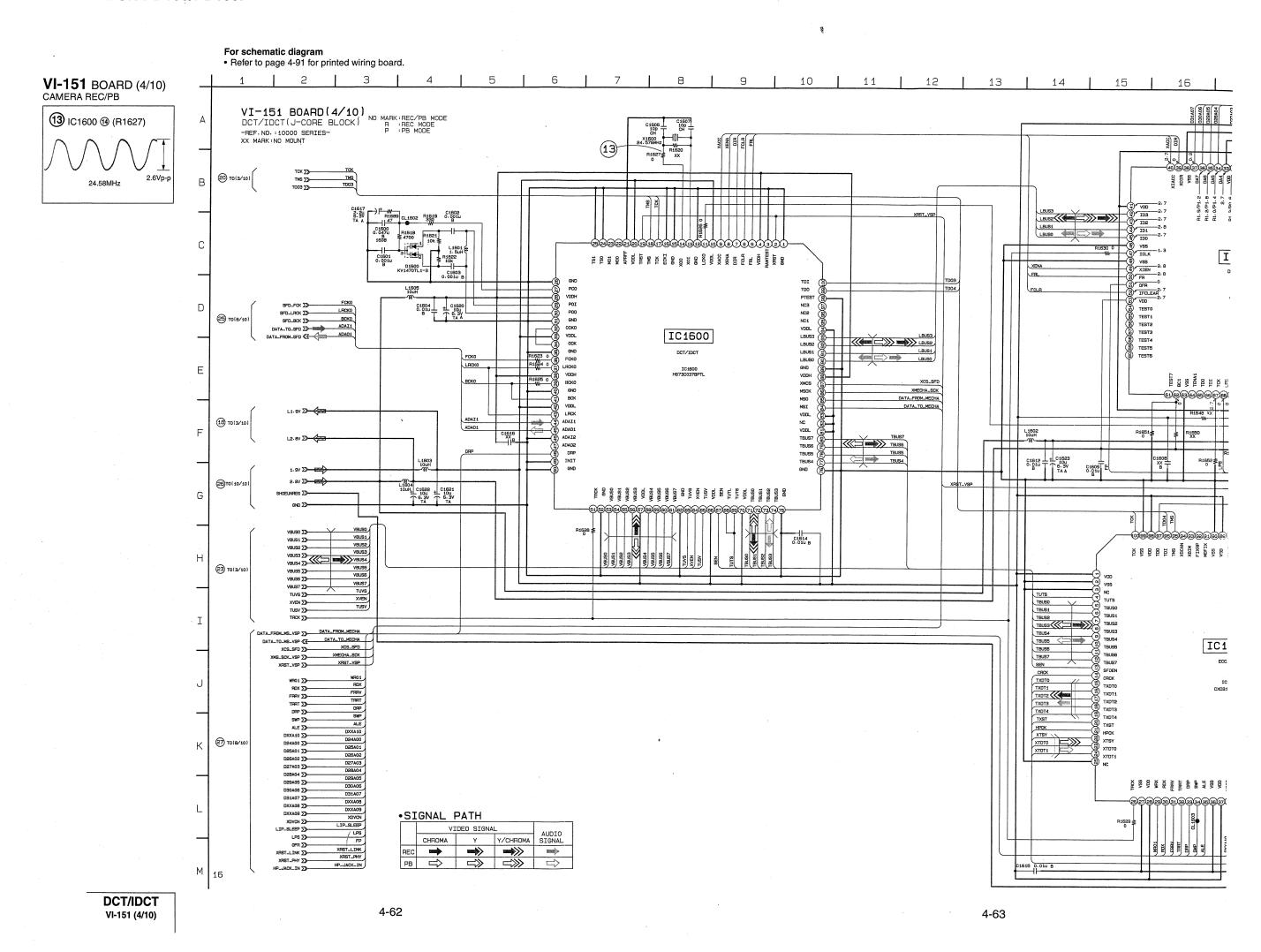
XMIC\_MONO XMIC\_MONO XCS\_HONEY ∑> XCS\_FLASH XCS\_FLASH >> XCS\_FLASH
DATA\_FROM\_HI1 14 TO (6/10) VREF SS-FRRV 🏬 2.5 XHSYNC XCLK 2.B MF\_LED ( MF\_LED DATA\_TO\_HI1 C DATA\_TO\_HI1 (19) TO(B/10) TMS (TMS XHI\_SCK1 XHI\_SCK1 SS-XCS\_VFD ∑> XCS\_VFD

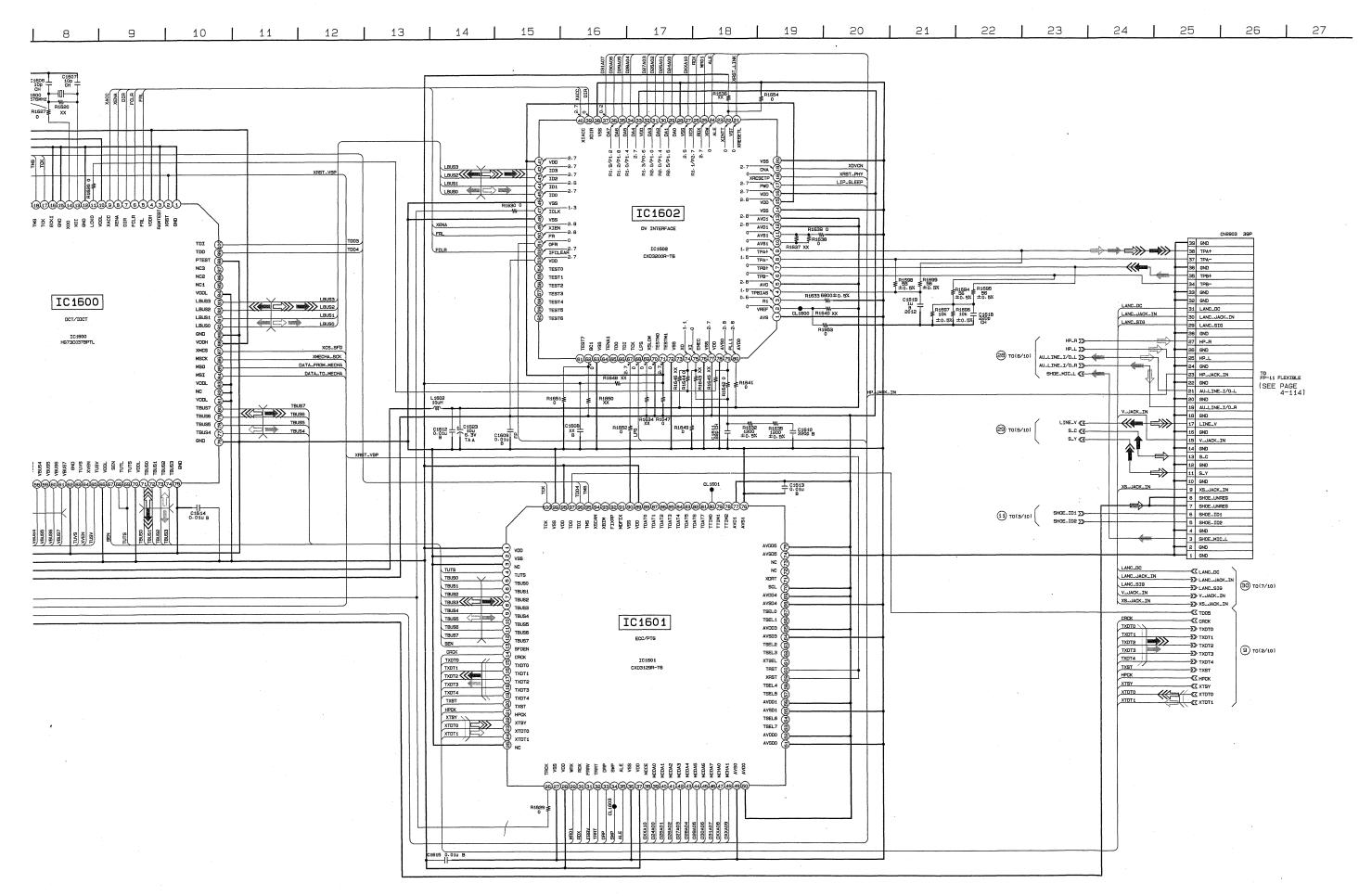
XCS\_VFD ∑> XCS\_VFD

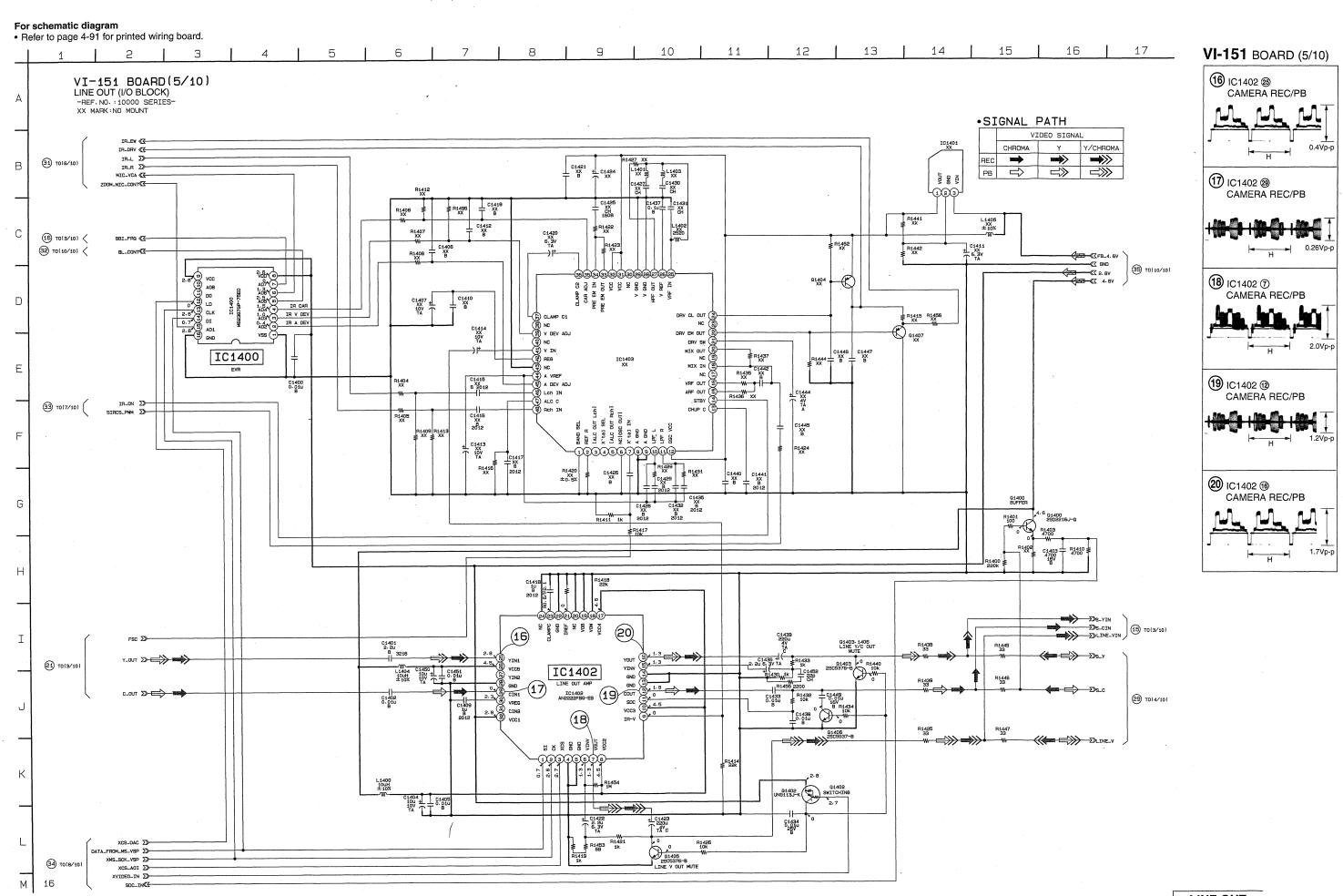
DATA\_TO\_MS\_VSP ≪ DATA\_TO\_MS\_VSP IC1502 CAM\_PA3 CAM\_PA3 ∑≫ MB90097PFV-G-110-BND TCK ≪ TCK 20 TO(4/10) CAM\_PA2 17) TO(7/10) CAM\_PA2 SS---TDO ∑≫TDO3 DATA\_FROM\_MS\_VSP >> DATA\_FROM\_MS\_VSP IC1502 CAM\_PA1 CAM\_PA1 >>-CAM\_C3 CAM\_C1 CAM\_C1 CAM\_Y7 CAM\_Y6 CAM\_Y5
CAM\_Y3
CAM\_Y2
CAM\_Y2
CAM\_Y2
CAM\_Y0 XCS\_CAMERA SS-XCS\_CAMERA XRST\_VSP XRST\_VSP CHARACTER GENERATOR XCS\_BBI XCS\_BBI ∑> XSH\_WAKE\_UP XSH\_WAKE\_UP 55-CAM\_DD\_ON CAM\_DD\_ON 5>-16 VTR\_DD\_ON VTR\_DD\_ON S ZOOM\_SW\_AD ZOOM\_SW\_AD >>>

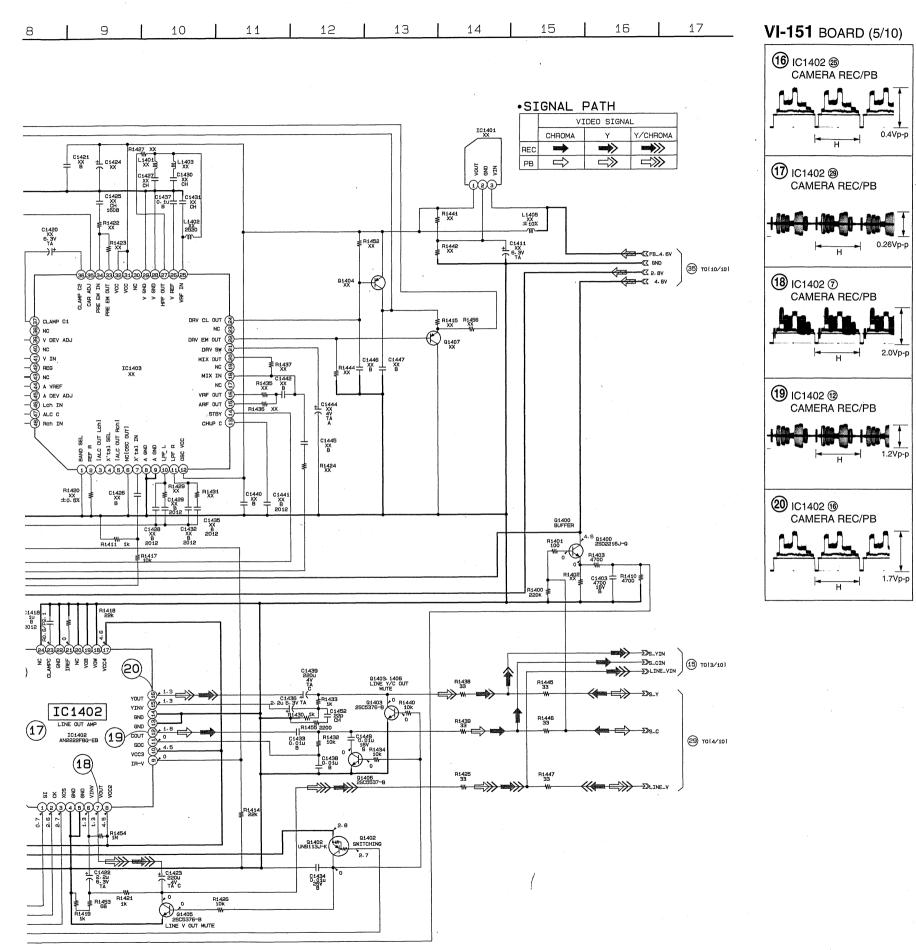


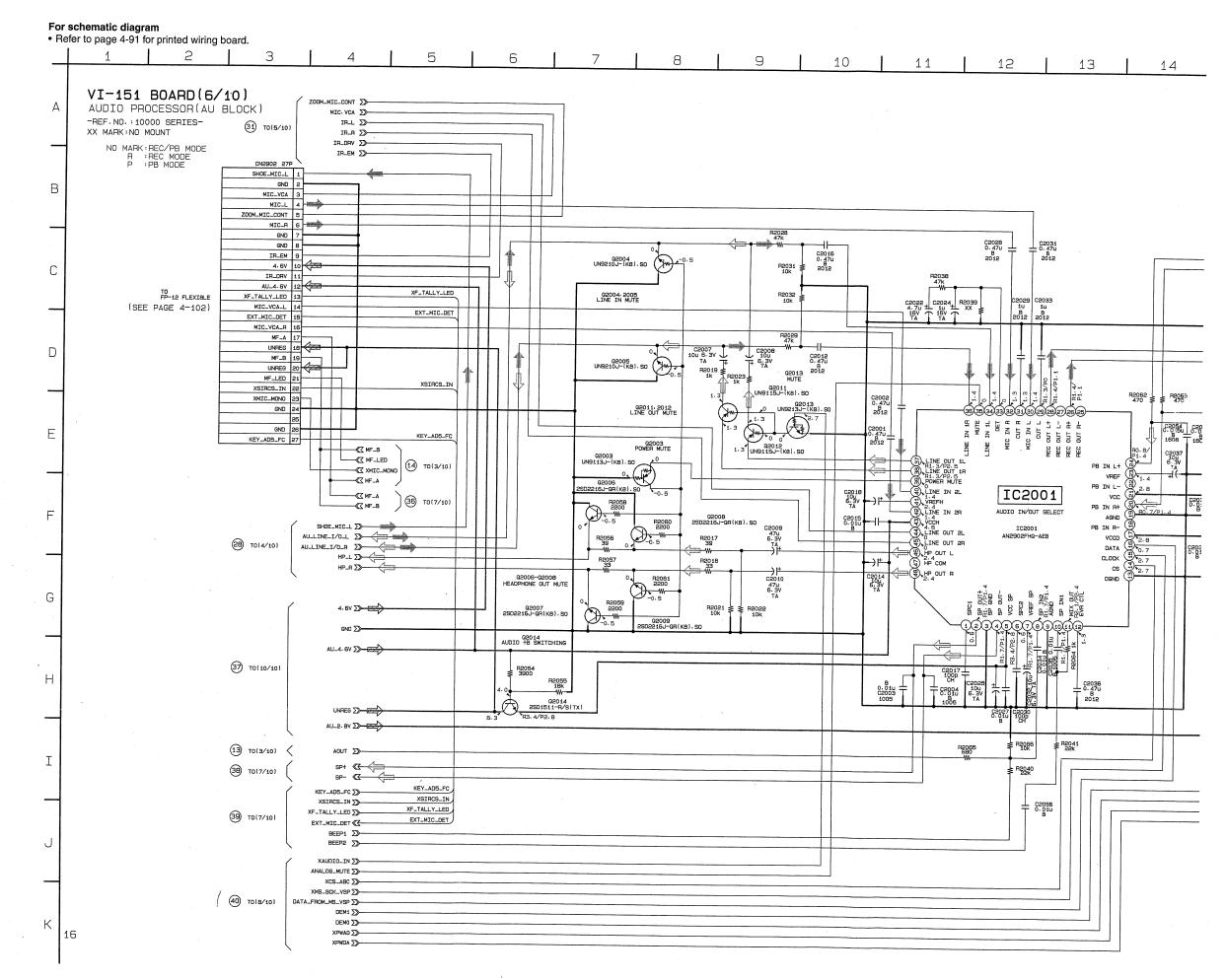
VIDEO INTERFACE VI-151 (3/10)

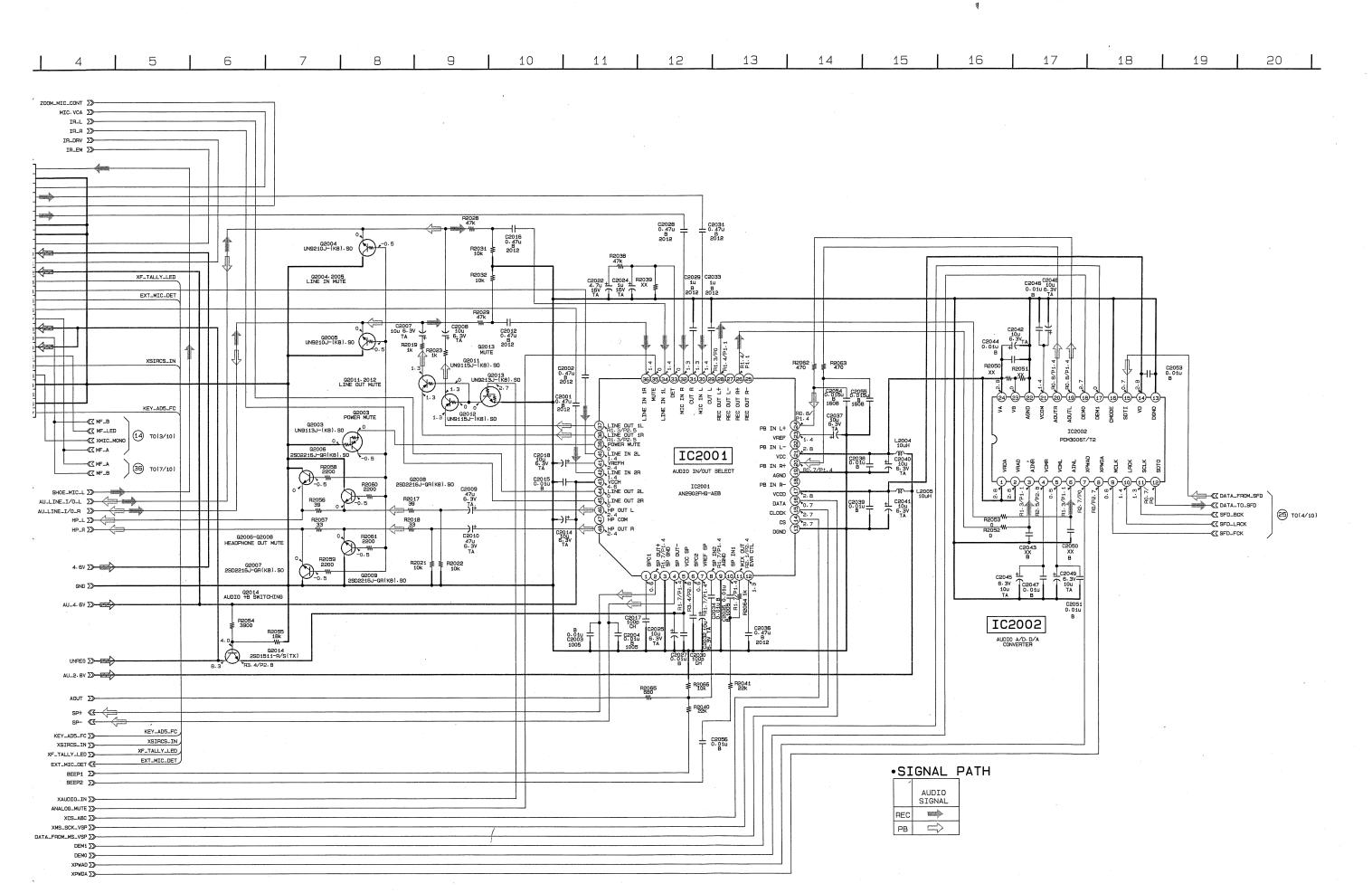












For schematic diagram • Refer to page 4-91 for printed wiring board. 17 18 19 **|** 20 15 16 8 9 10 | 11 | 12 | 13 14 5 2 VI-151 BOARD(7/10) EXT\_MIC\_DET EXT\_MIC\_DET \$50-HI CONTROL(HI BLOCK) XSIRCS\_IN XSIRCS\_IN >>> 02202: 2221 BUFFER 216J-GR(KB). SO MELODY\_EN -REF. NO. : 10000 SERIES-' XF\_TALLY\_LED XF\_TALLY\_LED >> 39 TO(6/10) IC2203 KEY\_AD5\_FC BEEP2 NO MARK:REC/PB MODE R :REC MODE P :PB MODE LANC IN/OUT BEEP2 ∑> ACC DOMY 22 CHIME\_SCK (41) TO(9/10) CHIME..SDA ∑≫-L2202 1UH XSYS\_RST 0 C2211 LANC ON SWITCH UN9111J-(KB). SO R2233 2700 XRST\_FROM\_HI∑≫-XCS\_MECHA 02203 BUFFER 0 1 12208 4700 8L 02220 2.8 UN3213J−(K8).80 ≱ | C2211 | C2211 | O. 10 F 42 TO(8/10) XHI\_SCK1 ∑> G2213, 2214 SWITCHING HI\_S HI\_SI DATA\_TO\_HI1 >> SIRCS\_PWM >>-NC GND (C.1. IR\_ON IR\_ON ∑≫ G2217-221 LED DRIVE UNREG 1 DATA\_FROM\_HI2 5>-XCS\_OSD xcs\_usu ∑>> 02213 XP4401-TXE N.C. 3 XHI\_SCK2 ∑> C2225 0.1u F R2236 470k XSW\_LED\_VTR 4 G2200 9213J-(KB).50 24) TO(3/10) KEY\_ADO XF\_TALLY. LINE\_OUT\_V >> C2226 0. tu F KEY\_AD1 KEY\_AD1 XBST\_FROM\_HT 55---CONTROL SWITCH BLOCK XEJECT\_SW Q2216 Q2216 SWITCH 258624-XEJECT\_SW 8 EVER\_3. 0V ∑> LANC\_DC XIR\_LED\_ON XIR\_LED\_ON 9 (SEE PAGE 4-88 2. BV 10 258 XCAM+STBY\_SW 14
XCHOTO STBY\_SW 45
XCHOTO STBY\_SW 45 BATT/XEXT XPHOTO\_STBY\_SW 15 L2201 10uH ±10% XS/S\_SW XIR\_LED\_ON CHARGE\_INH -38868838838838838838858 CHARGE\_INH ∑> C2215 C2215 C2212 C2212 TA A C7 TA XSW\_LED\_VTR D2200 MA728-TX BATT\_FET\_ON D2201 PS2200 MA728-TX 0.4A (51) TO(10/10) AVREF\_0 BATT\_SIG SHOE\_ON IC2201 -(n) LANC\_IN AVREF\_U

OND

H2295 1k

H2295 1k

H2296 1k

H2297 1k

CHIME\_AD1

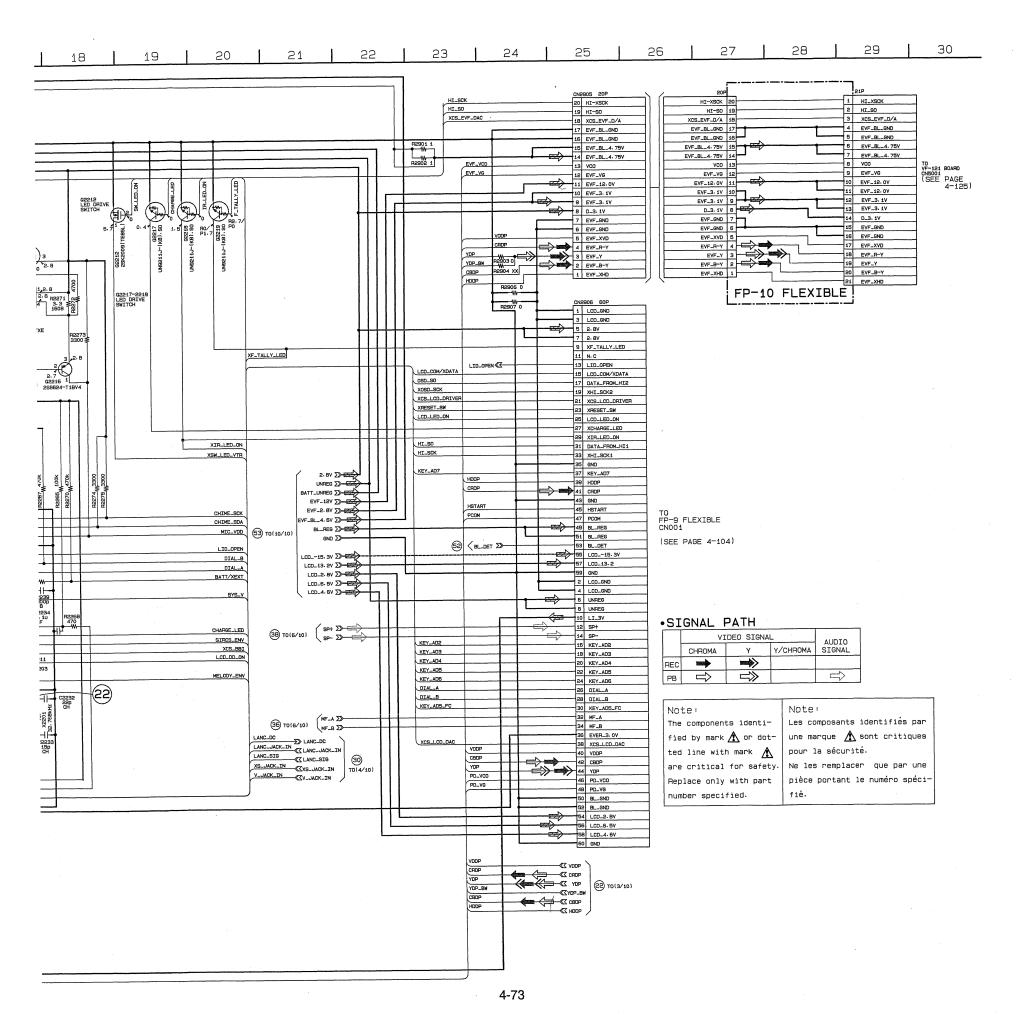
CHIME\_AD0

H2297 1k BATT\_SIG ∑>-- $oldsymbol{\Lambda}$ SHOE\_ON ∑> CHIME\_SCK BACK-UP- RESET XCS\_CAMERA T\_CHARGE\_ON ∑ XSIRCS\_IN EVF\_DD\_ON VSS PREEND VIN PREEND (53) то ( EAE-DO-ON 239-MIC\_VDD CHIME\_SDA CHIME\_SCK R2278 100 LCD\_DD\_ON VTR\_DD\_ON CHIME\_PWB\_CONT LID\_OPEN VTR\_DD\_ON ∑≫ XSH\_WAKE\_UP
XSYS\_RST CL220: DIAL\_B CN2904 2OP

LANC\_SIG 1

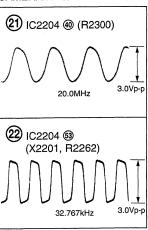
EVF\_BL+ 2 XSH\_WAKE\_UP DIAL B (B IC2204 LANC\_SIG OVBAT VOUT OF DIAL A 9 CS RESET IN EVF\_DD\_ON R2213 W BATT/XEXT EVF\_DD\_ON HI CONTROL EFN\_BL- 3 EVF\_VG 4 N. C.(L.CD\_DD\_ON SYS\_V SYS\_V EVF\_VCO 5 0. 1u F GND 6 PD\_VG 7 YVTD MODE SI VDD BATT\_IN PD\_VC0 XCAM+STBY\_SW XCAM+STBY\_SW XCS\_FLASH 53> XS/S\_SW XEJECT\_SW CHARGE\_LED CHAEGE\_LED PD\_VCO B XSH\_WAKE\_UP >> XSH\_WAKE\_UP H<sup>(1)</sup> xs/s sw CPC HSTART SIRCS\_ENV H\_START 9 SIRCS\_ENV XSYS\_RST XCC\_DOWN XCS\_BBI (FOR CHECK XHD/PSIG 10 XCC\_DOWN XCS\_CAMERA LCD\_DD\_ON XPHOTO\_FREEZE FI2206 220 € PANEL\_COM 11 TMS 12 XCS\_CAMERA ∑ XPHOTO\_FREEZE LCD\_DD\_ON D2208 R2234 MA728-TX 27 W TMS TCK TD06 HI\_SCK XHT\_SCK1 ∑> XPHOTO\_STBY\_SW XPHOTO\_STBY\_SW HI\_SO XLANC\_PWR\_ON MELODY...ENV MELODY\_ENV TCK 13 XLANC\_POWER\_ON HI\_SI , XCS\_MECHA DATA\_TO\_HI1 >> IR\_LED\_ON (21) x220.1 2. 768KHz CAM\_PA1 ∑>-XCS\_LCD\_DRIVER 55b C5535 TDD 15 GND 16 SWP 17 XCS\_LCD\_DRIVER 32KHZ\_IN LCD\_COM/XDATA
INIT\_CHARGE\_ON 17) TO(3/10) LCD\_COM\_XDATA F\_TALLY\_LED C2237 C2235 —≪Z SWP CAM\_PA3 ∑> 4 TO(1/10) RF\_IN/LANC\_JACK\_IN 18 R2262 C2233 10M 15p 1608 CH IC2500 LANC\_JAC G2901 UN9211J-(KB). SO REG LID\_OPEN 5>-XS\_JACK. XCS\_BBI ∑> XCS\_BBI\_ VTR\_DD\_ON G2901 LANC ON SWITCH VTR\_DD\_ON ∑> CAM\_DD\_ON XLANC\_ON\_ R2240 100k R2241 100k R2242 100k R2243 XX R2244 XX (B) T0(2/10) R2235 1M COURT SOM 

16



### VI-151 BOARD (7/10) CAMERA REC/PB

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## DSR-PD100/PD100P

For schematic diagram • Refer to page 4-91 for printed wiring board. 4 **VI-151** BOARD (8/10) CAMERA REC/PB VI-151 BOARD(8/10) **23** IC2401 ① (X2400) MECHANISIM CONTROL (MD1 BLOCK) -REF.NO.:10000 SERIES-XX MARK: NO MOUNT MS74 XMS\_SCK\_VSP ( MS75 NO MARK: REC/PB MODE R : REC MODE P : PB MODE (34) TO(5/10) DATA\_FROM\_MS\_VSP < XVIDEO\_IN << MS18 XCS\_ADI << MS19 В MS7B XMS\_SCK\_DRP < MS79 DATA\_FROM\_MS\_DRP < 2 TO(1/10) BEC\_CBBTO << REC\_CRRT1 €€ XCS\_TRF < DEMO ≪<del>≤</del> MS87 DEM1 XPWAD << XPWDA «~ 40 TO(6/10) ANALOG. MUTE XAUDIO\_IN & MS21 XCS\_ABC << D XMS\_SCK\_VSP << MS75 DATA\_FROM\_MS\_VSP < MS75 DATA\_FROM\_MS\_VSP < XRST\_VSP ( MS76 DATA\_TO\_MS\_VSP\_>>-MS74 XMS\_SCK\_VSP∑> (19) TO(3/10) FRRV < XCS\_VFD << MS10B TRRV (C MS112 VREF ∑> MS118 CAM\_VD ∑≫-VFI\_VD >>--MS106 FRRV «<del>-</del> XRST\_LINK «Z MS1: XRST\_PHY << MS13 ALE ( MS14 MS15 HP\_JACK\_IN ∑> WR01 ( MS16 RDX **⟨**₹ MS107 G TRRT << MS92 XRST\_VSP ≪ MS119 DFR << DATA\_FROM\_MS\_VSP < MS76 DATA\_TO\_MS\_VSP << MS77 LPS << MS74 XMS\_SCK\_VSP << MS61 DRP << 27 TO(4/10) MS84 Н LIP\_SLEEP D24A00 (Z-D25A01 << MS2E D26A02 (KZ-MS25 D27A03 (Z-MS3C D28A04 (C-XDVCN ∑≫-SWP ( D29A05 《<del>~</del> D30A06 << D31A07 << DXXAO9 DXXA10 « XCS\_SFD < MS7B XMS\_SCK\_DRP << MS79

DATA\_FROM\_MS\_DRP <<

6 TO(2/10)

DATA\_TO\_MS\_DRP

XRST\_VSP (T-

ATF\_ERR 5>>-

XCS\_TRF <<

D\_SWP <<

MSBO

**MECHANISM CONTROL** 

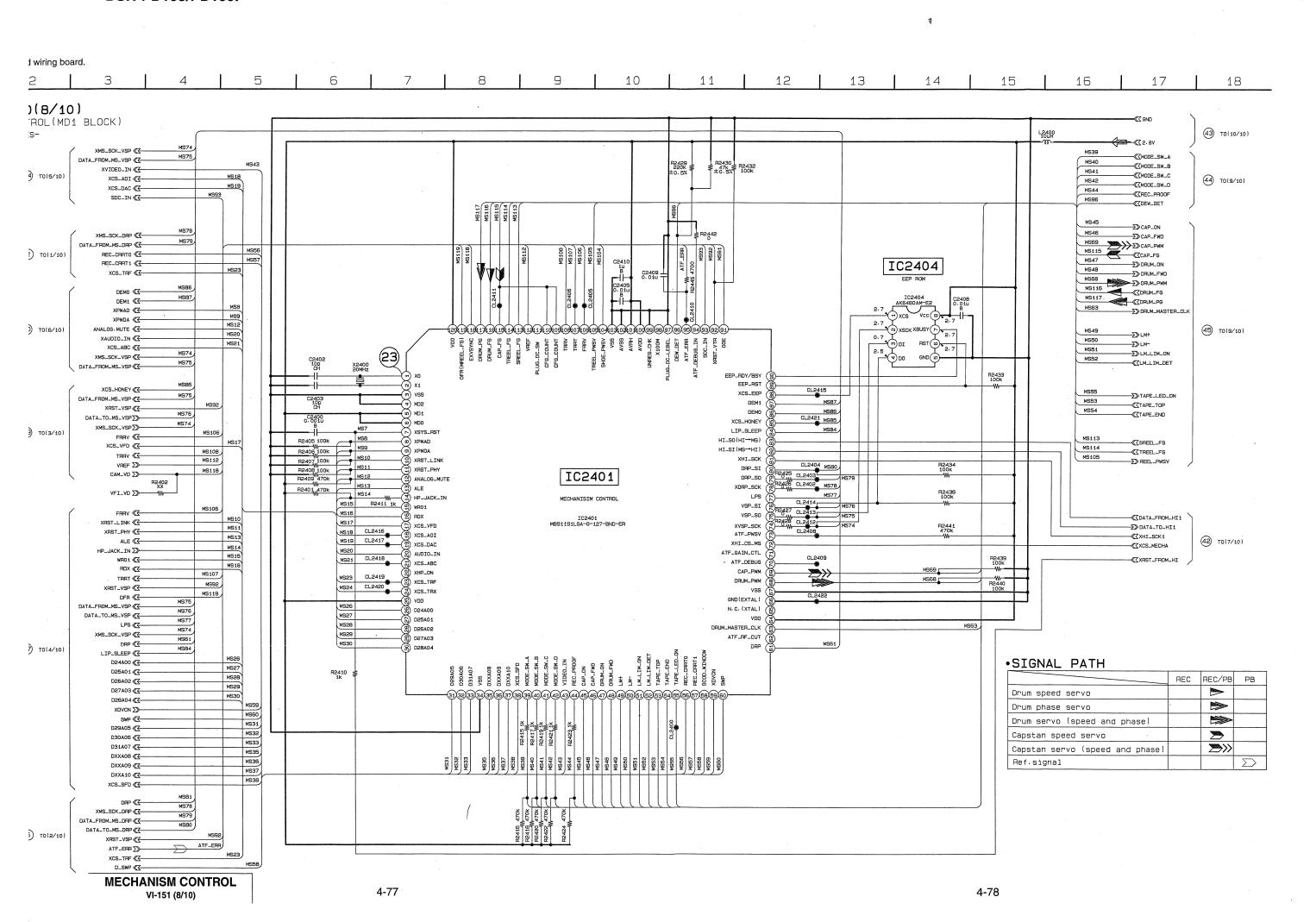
VI-151 (8/10)

ATF\_ERR

4-76

К

16

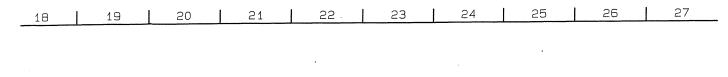


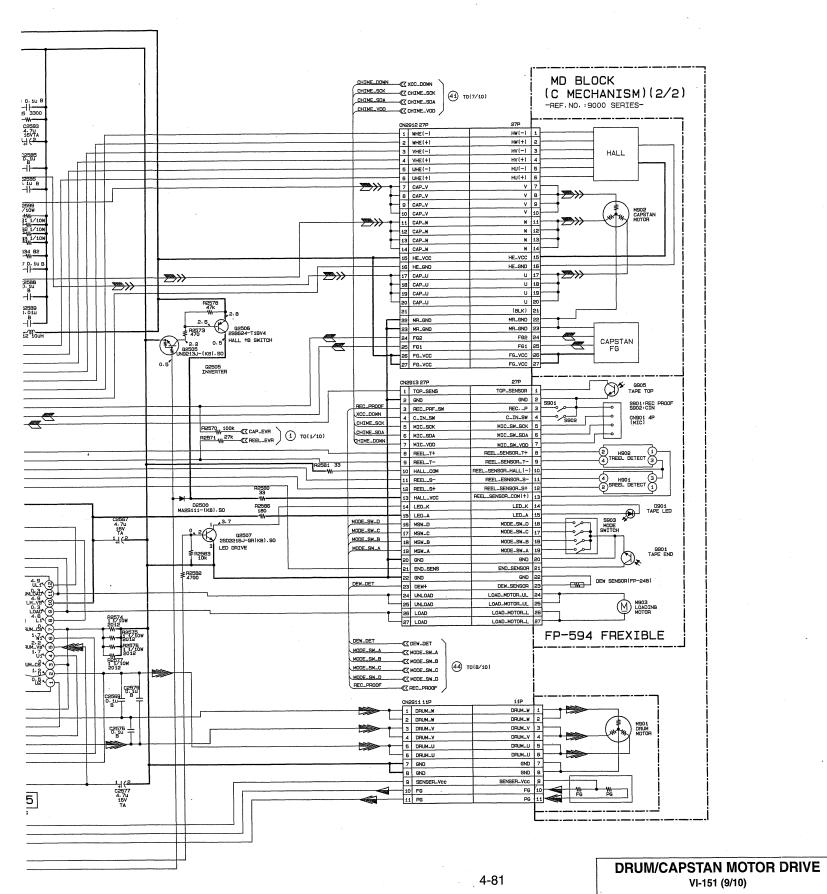
For schematic diagram Refer to page 4-91 for printed wiring board. • Refer to page 4-87 for FP-594 flexible board. 5 9 10 6 8 11 12 | 13 | 14 | 15 | 16 | 17 | 18 19 20 VI-151 BOARD(9/10) DRUM/CAPSTAN MOTOR DRIVE NO MARK:REC/PB MODE R :REC MODE R :REC MODE P :PB MODE -REF.NO.:10000 SERIES-XX MARK: NO MOUNT ~~~ UNREG SS-R2569 2200 C2573 4.70 7+ 16V TA CAP\_VSC 《 R2530 R2572 33k 10k **>>>** CAP\_VS ∑>----02583 4.70 16VTA C2585 B IC2504 CAPSTAN MOTOR DRIVE 33 R2534 B2 C2589 0.01u B CAP\_FWD CAP\_FWD∑> CAP\_PWM CAP\_FG CAP\_PWM DRUM\_ON 53 L2511 8 DRUM\_PWM >>-DRUM\_FG << DRUM\_PG << (45) TO(8/10) ASTER\_CLK∑ LM-LM\_LIM\_ON H2570 100k ≪ CA H2571 W 27k ≪ RE LM\_LIM\_ON∑≫-LM\_LIM\_DET << TAPE\_TOP< C2590 100p CH SREEL\_FG ( TREEL\_FG << C2551 0. ju 82<u>5</u>45 ---||--R2549 4700 D2500 MA2S111-(KB).SO **28** (27) 2. 7 B END\_OUT

R2550 0.30 B 1.3 TOP\_IN 4.7u 16V C2591 100p CH ₹R2583 ₹R2582 4700 1.4 DRUM\_CLK IC2503 2.7 DRUM\_F/R 0.3 (F) UL2 0.3 (F) UNLOAD 0.3 (F) LOAD 0.4 (F) LOAD 0.4 (F) LOAD 0.5 (F) LOAD DRUM MOTOR DRIVE 0. 2 B SU IC2503 CXA8062R-EB W P2575 W 2012 W R2576 W 2012 R25776 W 2012 SIGNAL PATH C2562 | C2563 | C2564 REC REC/PB PB Drum speed servo Drum phase servo C2576 十 Drum servo (speed and phase) **>** Capstan speed servo Capstan servo (speed and phase) C2559 R2510 0.1u ₹ 3300 IC2505 1 97886 丁 R2546 150k H2551 \$ ±0.5% DRUM/LOADING MOTOR DRIVE R2547 10k M | <sub>16</sub>

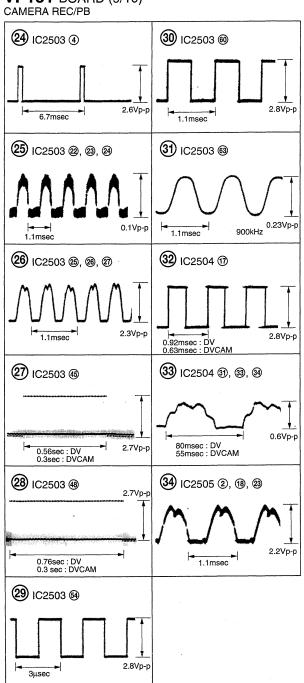
4-80

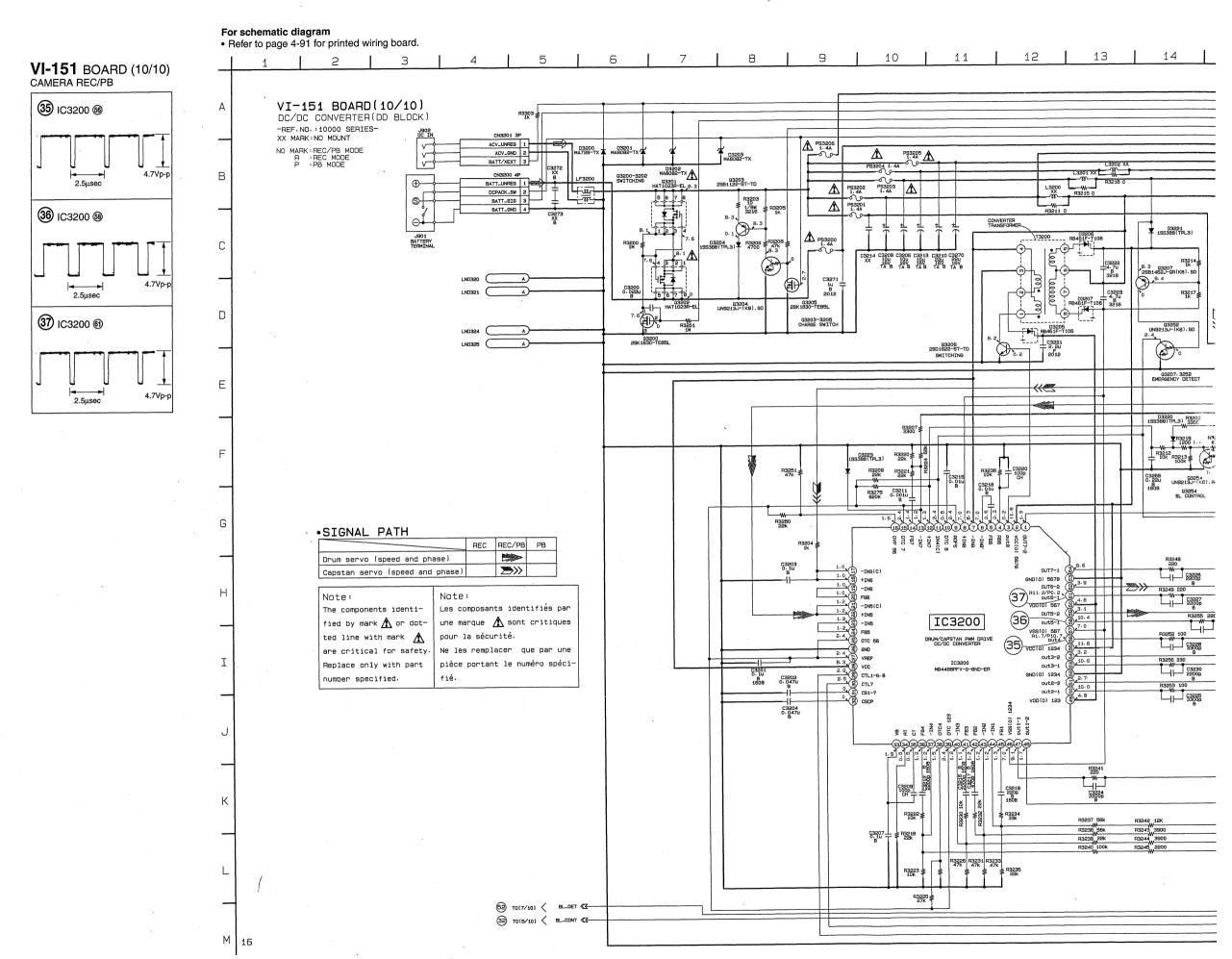
4-79

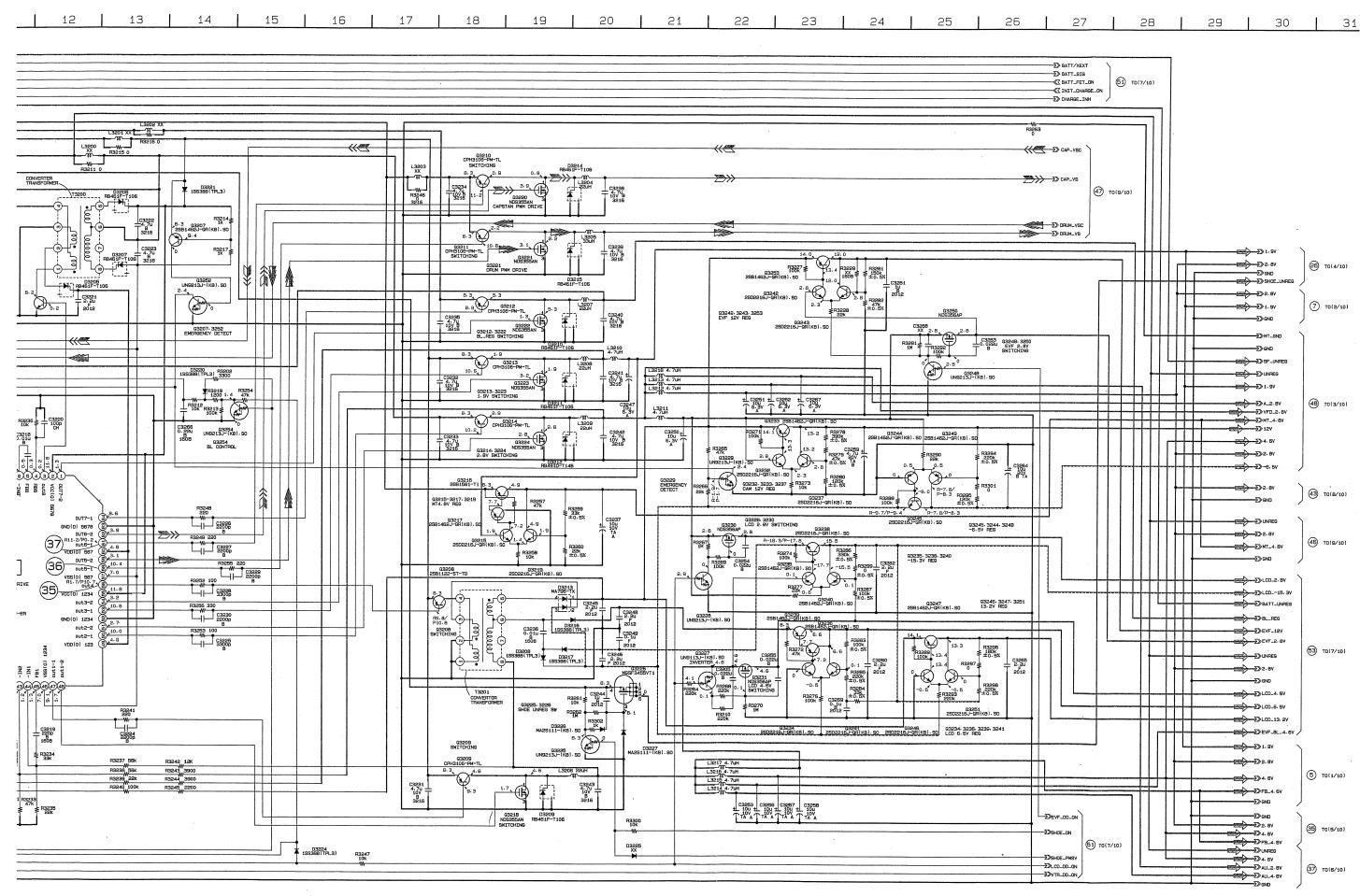


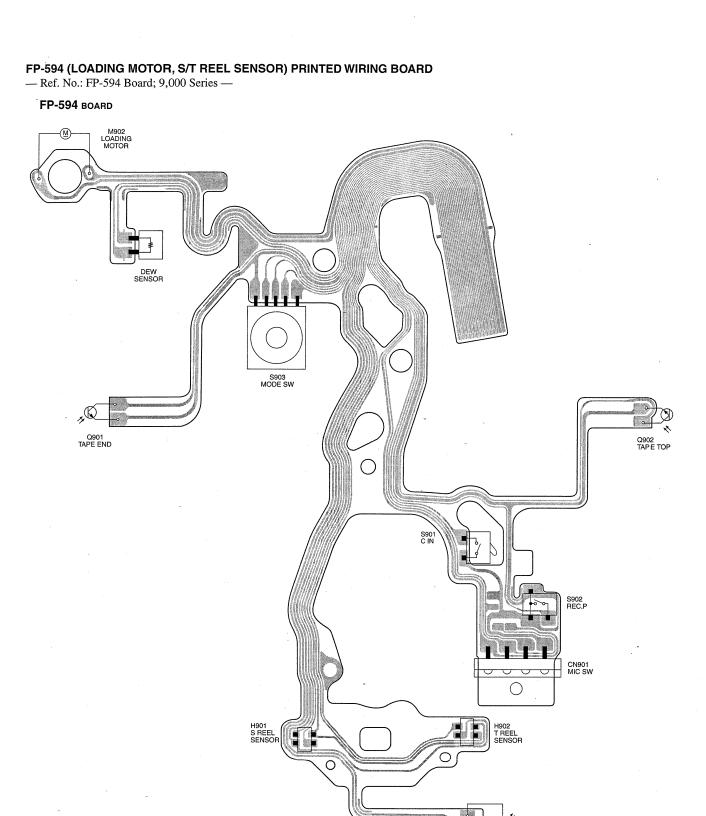


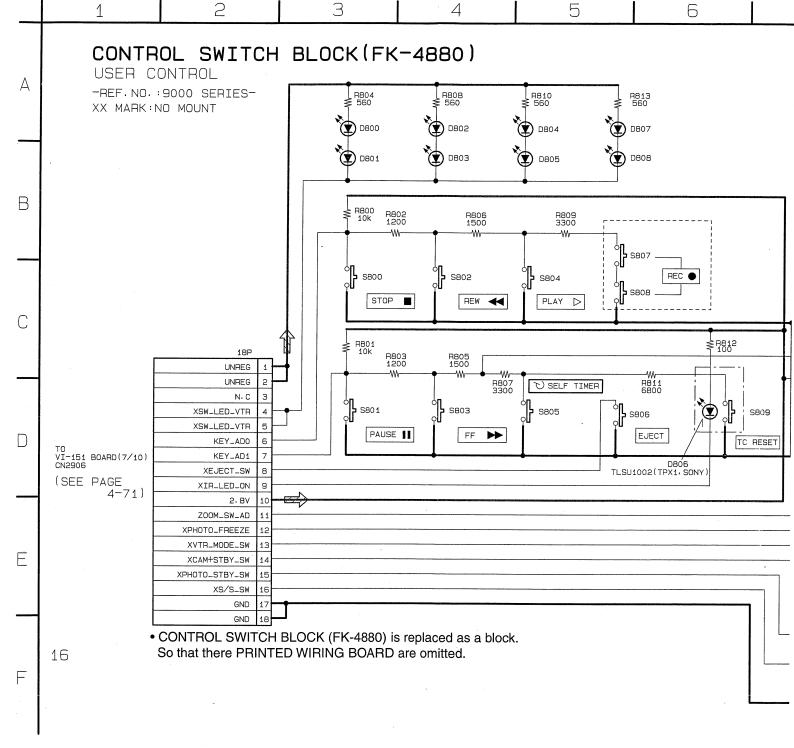
# **VI-151** BOARD (9/10)



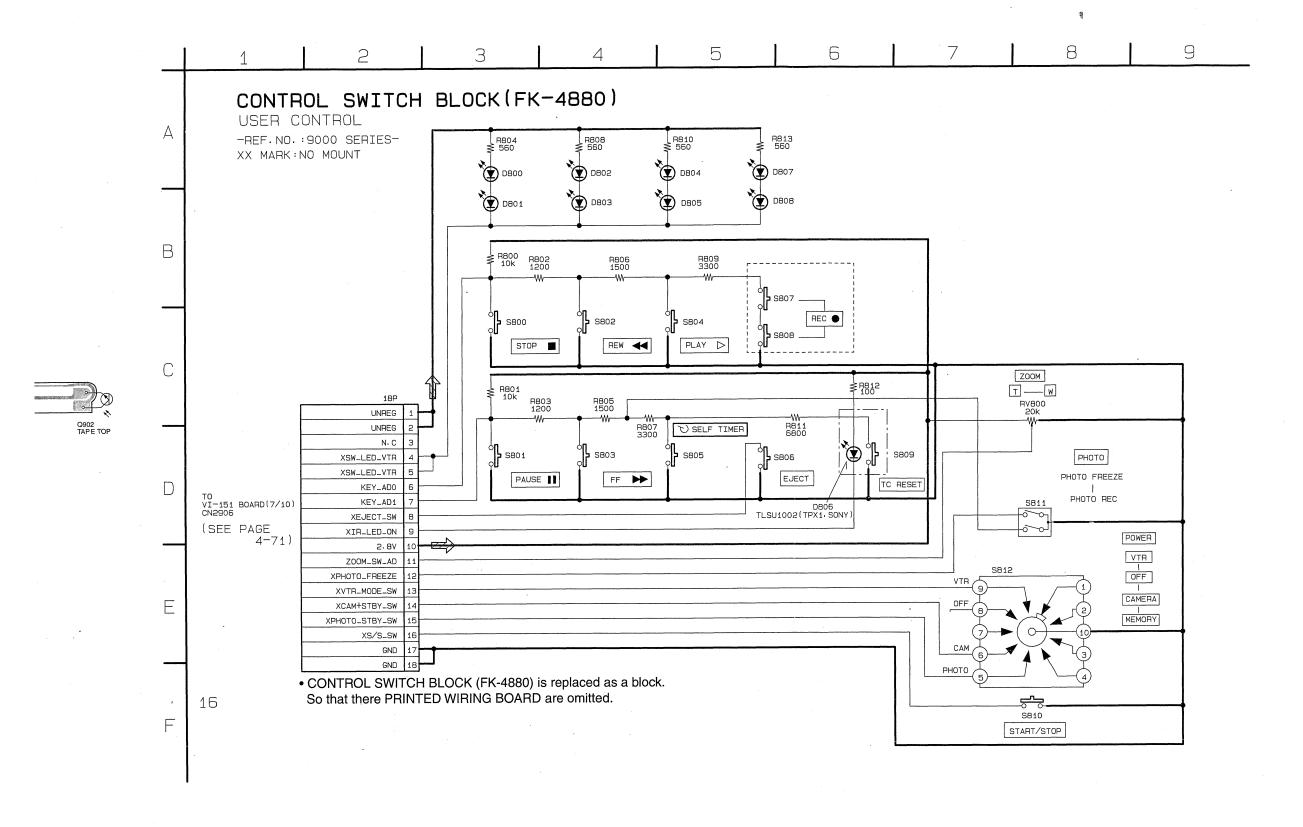








For printed wiring boards
• Refer to page 4-82 for FP-594 board schematic diagram.



**REEL SENSOR** 

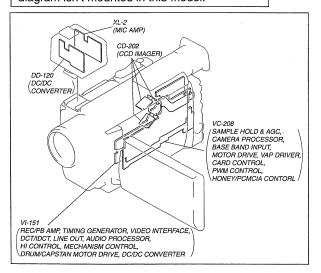
VI-151 BOARD (SIDE A)			
C1401 A-3 C1402 A-3 C1404 A-2 C1405 A-2 C1409 B-3 C1418 A-2 C1423 B-1 C1423 B-1 C1433 A-2 C1434 A-1 C1436 B-2 C1439 B-2 C1439 B-2 C1439 B-2 C1439 B-2 C1439 B-2 C1450 B-3 C1451 A-3 C1451 A-3 C1451 A-3 C1452 A-1 C1503 B-2 C1503 B-2 C1503 B-2 C1503 B-2 C1507 C-2 C1512 B-2 C1501 B-2 C1501 A-4 C1601 A-4 C1602 A-4 C1603 A-4 C1601 A-4 C1601 A-4 C1602 A-4 C1603 A-4 C1603 A-4 C1604 B-3 C1615 A-4 C1617 A-4 C1611 A-4 C1618 B-3 C1615 C-1 C1902 A-6 C1903 B-6 C1904 C-5 C1908 A-6 C1909 A-5 C1910 A-6 C1903 B-6 C1904 C-5 C1908 A-6 C1909 A-5 C1910 B-6 C1909 A-5 C1910 B-6 C1909 B-1 C2040 C-5 C1908 B-1 C2040 C-1 C2041 B-1 C2042 C-1 C2043 B-1 C2040 C-1 C2040 B-1 C2040 C-5 C2409 D-6 C2500 B-1 C2040 C-5 C2409 D-6 C2500 B-1 C2051 B-1 C2040 C-1 C2041 B-1 C2042 C-1 C2043 B-1 C2044 C-1 C2045 B-1 C2046 C-1 C2047 B-1 C2048 C-1 C2049 B-1 C2050	C3244   C-7   C3246   E-7   C3246   E-7   C3246   E-7   C3248   E-8   C3249   E-8   C3255   E-9   C3260   D-7   C3262   D-7   C3262   D-7   C3269   D-9   C32901   C-9   C32901   C-7   C32901   C-9   C	Q3205         C-8           Q3206         C-8           Q3216         C-7           Q3217         C-7           Q3218         C-7           Q32219         C-7           Q3225         C-7           Q3226         C-7           Q3231         E-9           Q3234         C-7           Q3235         E-7           Q3236         D-7           Q3239         D-7           Q3240         D-7           Q3241         D-7           Q3242         D-7           Q3235         E-7           Q3236         D-7           Q3237         E-2           R1418         A-2           R1419         B-2           R1421         B-2           R1421<	R2416   C-6   R2417   C-6   R2418   C-6   R2419   C-6   R2420   C-6   R2421   C-6   R2422   C-6   R2423   C-6   R2425   D-6   R2425   D-6   R2427   C-6   R2428   C-6   R2428   C-6   R2429   D-6   R2430   C-5   R2430   C-6   R2450   B-8   R2506   B-8   R2506   B-8   R2506   B-8   R2507   B-7   R2508   B-8   R2511   B-8   R2510   B-7   R2506   C-7   R3206   C-7   R3207   C-7   R3208   C-7   R3200   C-7

For printed wiring boards • This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.

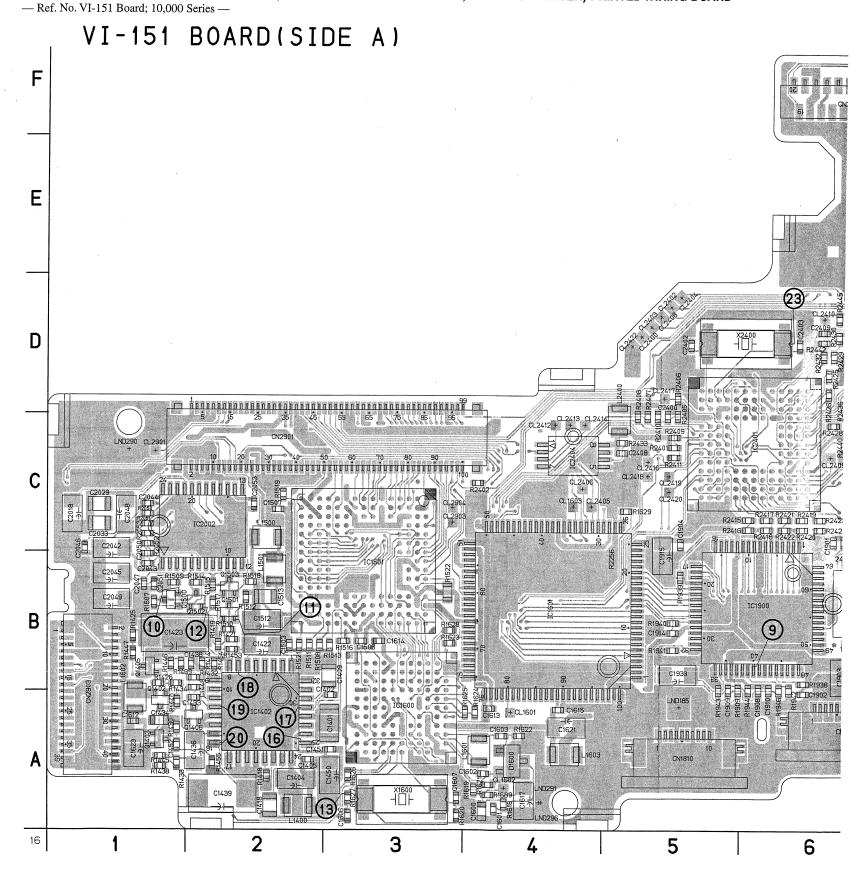
• Chip parts

Transistor

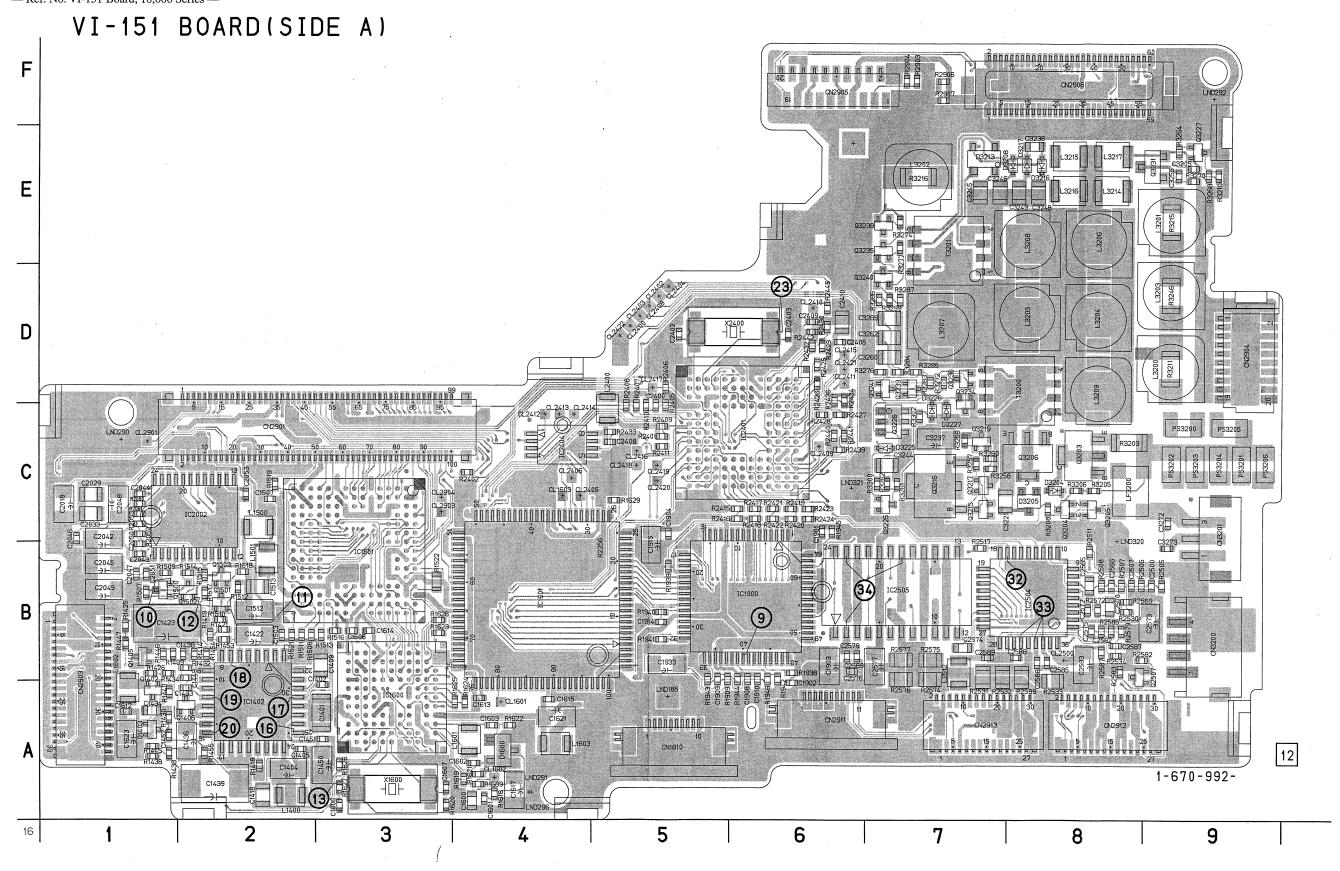
There are few cases that the part printed on this diagram isn't mounted in this model.



VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, LINE OUT, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRING BOARD



— Ref. No. VI-151 Board; 10,000 Series —



VI-151 I C1403 A-C1406 A-C1407 B-C1410 B-

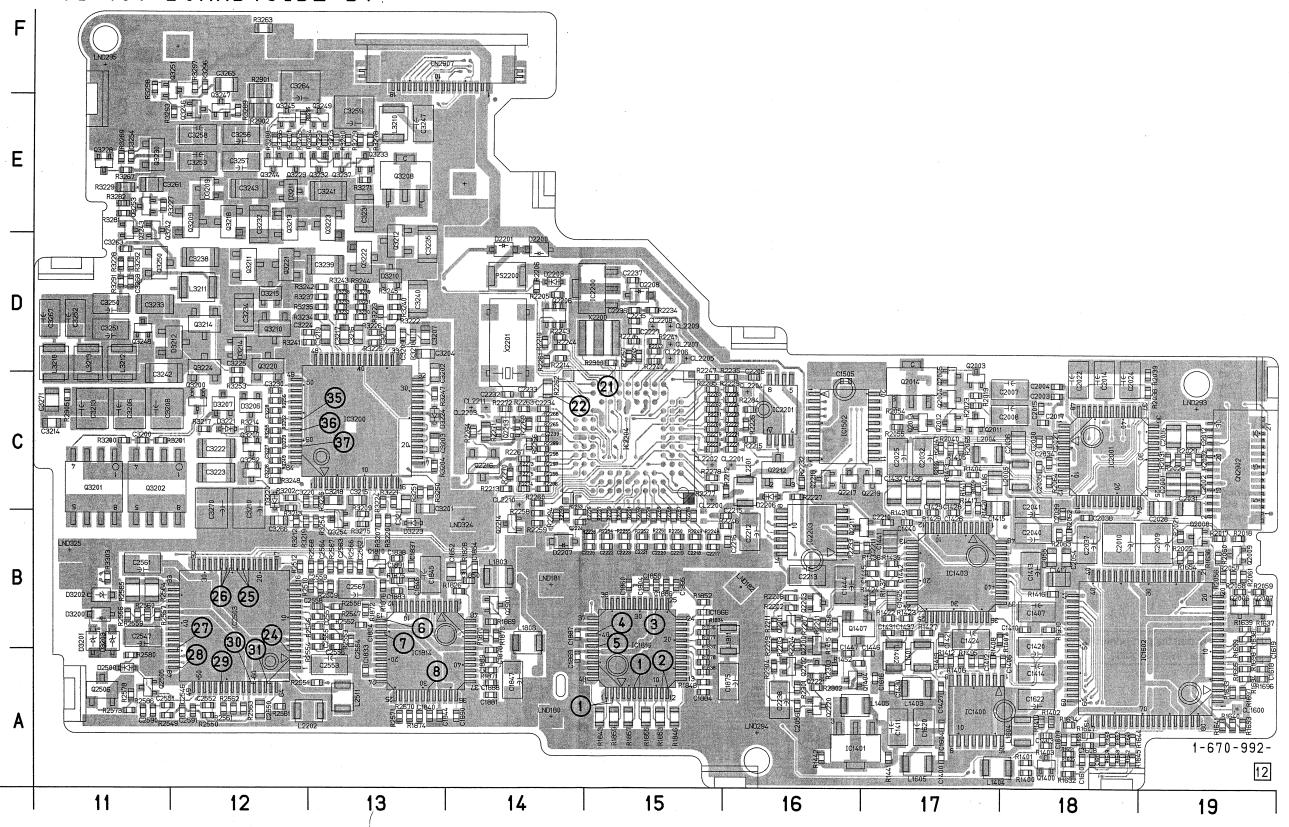
C1413 B-C1447 C1505 C1620 C1622 C1834 C1837 C1838 C1846 C1847 C1856 C1860 C1875 C1878 C1881 C1885

C1886 C1887 C1890 C1891 C2001 C2003 C2004 C2007 C2008 C2010 B-C2012 C-C2014 C-C2015 C-

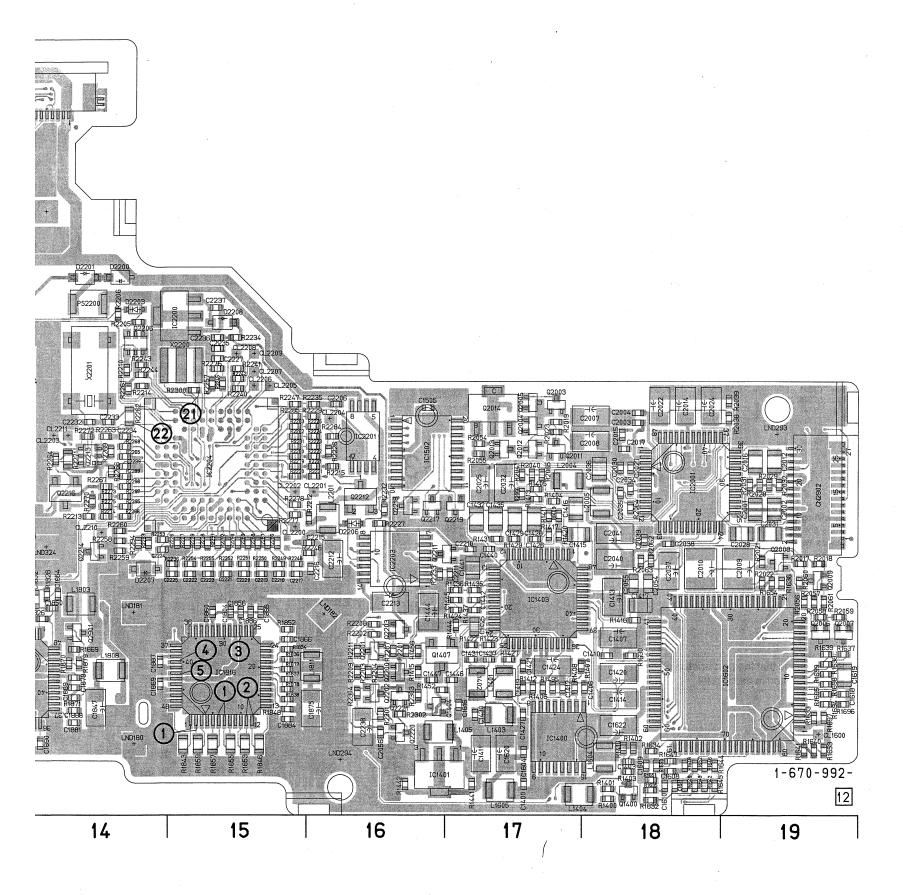
VI-151 BOARD(SIDE B)

- Ref. No. VI-151 Board; 10,000 Series -

10



SOR, ) PRINTED WIRING BOARD

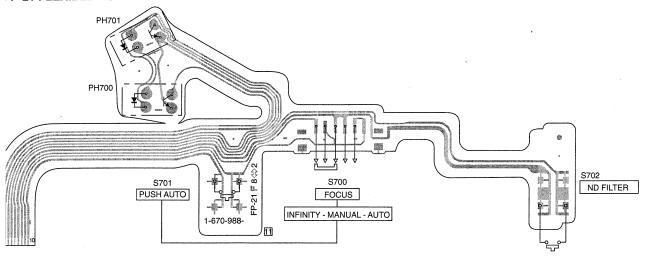


VI_151	BOARD	(SIDE	R
VI-101	BUARD	IDIDE	D

C-1400
C2010 B-18

### -21 (FOCUS SW) FLEXIBLE BOARD

### **FP-21 FLEXIBLE BOARD**

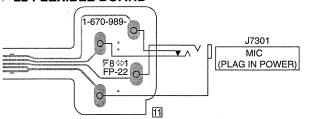


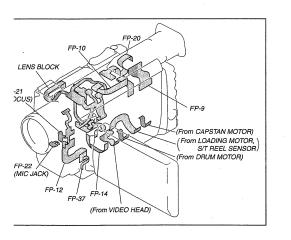
### MA-333 BOARD

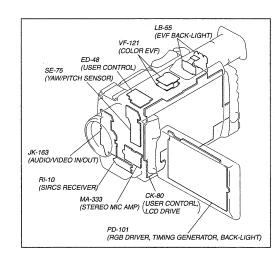
7300	A-1	I C7348	B-2	I R7313	A-1
7301	D-3	C7350	B-2	R7314	A-3
7301	A-2	C7351	D-2	R7315	A-3
	A-2 A-2		D-2 D-3		
7305		C7352		R7316	A-3
7306	A-2	C7353	D-2	R7317	A-1
7307	A-3	C7354	D-3	R7318	B-3
7308	A-2	C7355	D-2	R7319	B-2
7309	A-3	C7356	C-3	R7320	B-1
7310	A-2	C7357	D-3	R7321	B-2
7312	A-3			R7322	B-3
7313	A-2	CN7300		R7323	C-1
7314	A-3	CN7301		R7324	B-1
7315	A-2	CN7302		R7326	B-3
7316	A-3	CN7303		R7327	B-3
7317	A-1	CN7304		R7328	B-1
7318	A-2	CN7305	D-1	R7329	D-1
7319	A-3			R7331	B-3
7320	A-3	D7300	A-1	R7332	B-3
7321	A-1	D7304	E-2	R7335	B-1
7322	B-1	D7305	E-2	R7337	B-1
7323	B-1			R7339	B-1
7324	A-1	FB730	A-3	R7342	B-2
7325	B-3	FB731	A-3	R7343	B-2
7326	B-3	1		R7344	B-2
7327	D-1	IC7301	B-2	R7345	C-2
7328	B-2	IC7302	D-2	R7346	B-2
7329	B-1	IC7303	D-2	R7347	B-2
7330	B-1			R7348	B-2
7331	B-3	Q7300	D-1	R7350	D-2
7332	B-3	Q7301	B-1	R7351	D-3
7333	B-3	Q7302	B-1	R7352	D-3
7336	B-3	Q7303	B-1	R7353	D-2
7337	B-3	Q7304	D-3	R7354	D-3
7338	B-2			R7355	D-2
7339	B-3	R7302	A-3	R7356	D-3
7340	B-2	R7303	A-1	R7357	D-3
7341	B-3	R7304	A-1	R7358	D-2
7342	B-3	R7305	E-2	R7359	D-3
7343	B-2	R7306	E-2	R7360	D-2
7344	C-1	R7309	A-2	R7361	E-2
7345	C-3	R7310	A-2	R7362	E-1
7346	C-3	R7311	E-2	R7363	D-3
7347	B-3	R7312	E-2	1	

### -22 (MIC JACK) FLEXIBLE BOARD

### P-22 FLEXIBLE BOARD







### For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

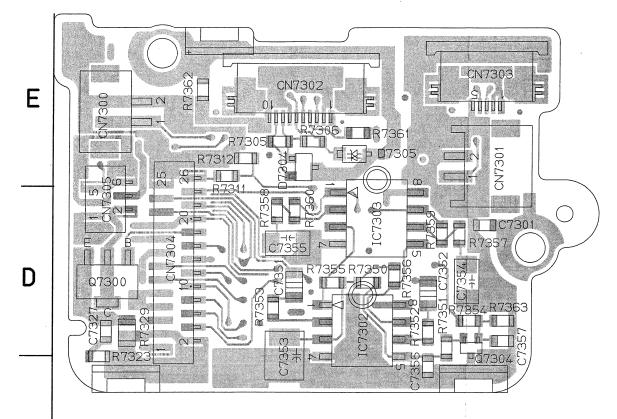
Transistor Diode

There are few cases that the part printed on this diagram isn't mounted in this model.

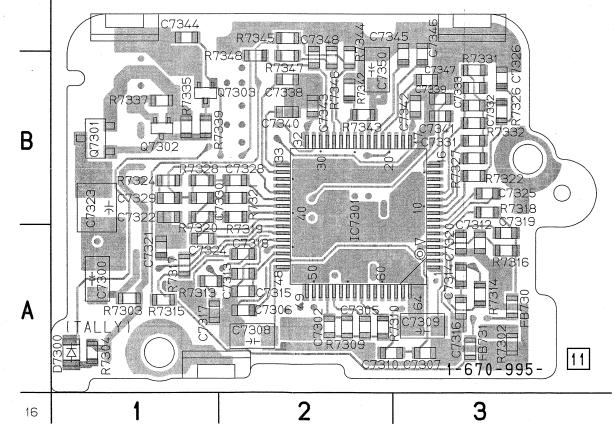
### MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD

- Ref. No. MA-333 Board; 10,000 Series -

# MA-333 BOARD(SIDE A)



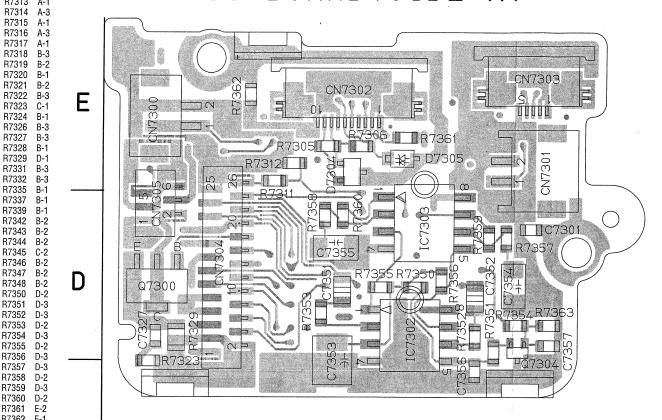
## MA-333 BOARD (SIDE B)



### MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD

- Ref. No. MA-333 Board; 10,000 Series -

### MA-333 BOARD(SIDE A)



### or printed wiring boards

C7347

C7321 C7322 C7323 C7324 C7325 C7326 C7327 C7328 C7330 C7331 C7333 C7336 C7336 C7337 C7338 C7339 C7340 C7341 C7342 C7344 C7344 C7344

This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram. Chip parts

MA-333 BOARD

C7348 B-2

C7350 B-2

C7350 B-2 C7351 D-2 C7352 D-3 C7353 D-2 C7354 D-3 C7355 D-2 C7356 C-3 C7357 D-3

CN7300 E-1 CN7301 E-3

CN7302 E-2

CN7303 E-3 CN7304 D-1 CN7305 D-1

D7300 A-1 D7304 E-2 D7305 E-2

FB730 A-3

FB731 A-3

IC7301 B-2 IC7302 D-2 IC7303 D-2

Q7300 D-1 Q7301 B-1 Q7302 B-1 Q7303 B-1

Q7304 D-3 R7302 A-3

R7303 A-1 R7304 A-1

R7304 A-1 R7305 E-2 R7306 E-2 R7309 A-2 R7310 A-2 R7311 E-2

R7312 E-2

R7313 A-1

R7313 A-1 R7314 A-3 R7315 A-1 R7316 A-3 R7317 A-1 R7318 B-3 R7319 B-2

R7326 B-3

R7327 B-3 R7328 B-1 R7329 D-1 R7331 B-3

R7332 B-3 R7335 B-1 R7337 B-1 R7339 B-1 R7342 B-2

R7342 B-2 R7343 B-2 R7344 B-2 R7345 C-2 R7346 B-2 R7347 B-2

R7347 B-2 R7348 B-2 R7350 D-2 R7351 D-3 R7352 D-3 R7353 D-2 R7354 D-3

R7353 D-2 R7354 D-3 R7355 D-2 R7356 D-3 R7357 D-3 R7358 D-2 R7359 D-3 R7360 D-2 R7361 E-2 R7362 E-1 R7363 D-3

C7300 A-1
C7301 D-3
C7302 A-2
C7305 A-2
C7306 A-2
C7307 A-3
C7308 A-2
C7309 A-3
C7310 A-2
C7312 A-3
C7315 A-2
C7315 A-2
C7316 A-1
C7318 A-2
C7318 A-2
C7319 A-3
C7320 A-3
C7320 A-3
C7320 B-1

B-1

B-3 B-3 D-1 B-2

B-1 B-3 B-3 B-3 B-3 B-2 B-3 B-2 B-3

B-3 B-2 C-1 C-3 C-3

B-3

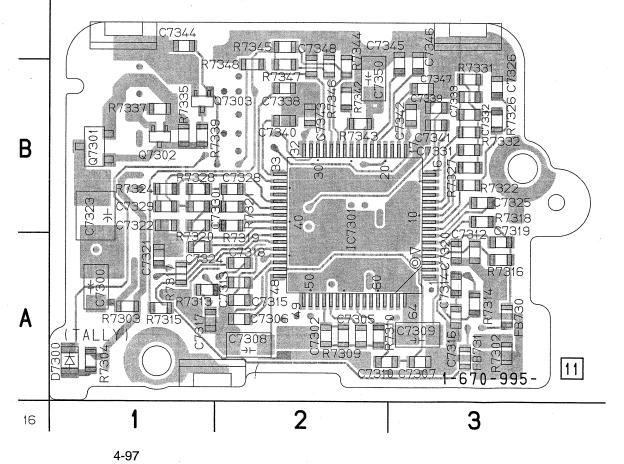
TER

Transistor



There are few cases that the part printed on this diagram isn't mounted in this model.

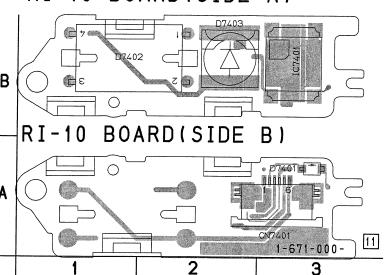
# MA-333 BOARD (SIDE B)



### RI-10 (SIRCS RECEIVER) PRINTED WIRING BOARD

- Ref. No. RI-10 Board; 10,000 Series -

### RI-10 BOARD(SIDE A)

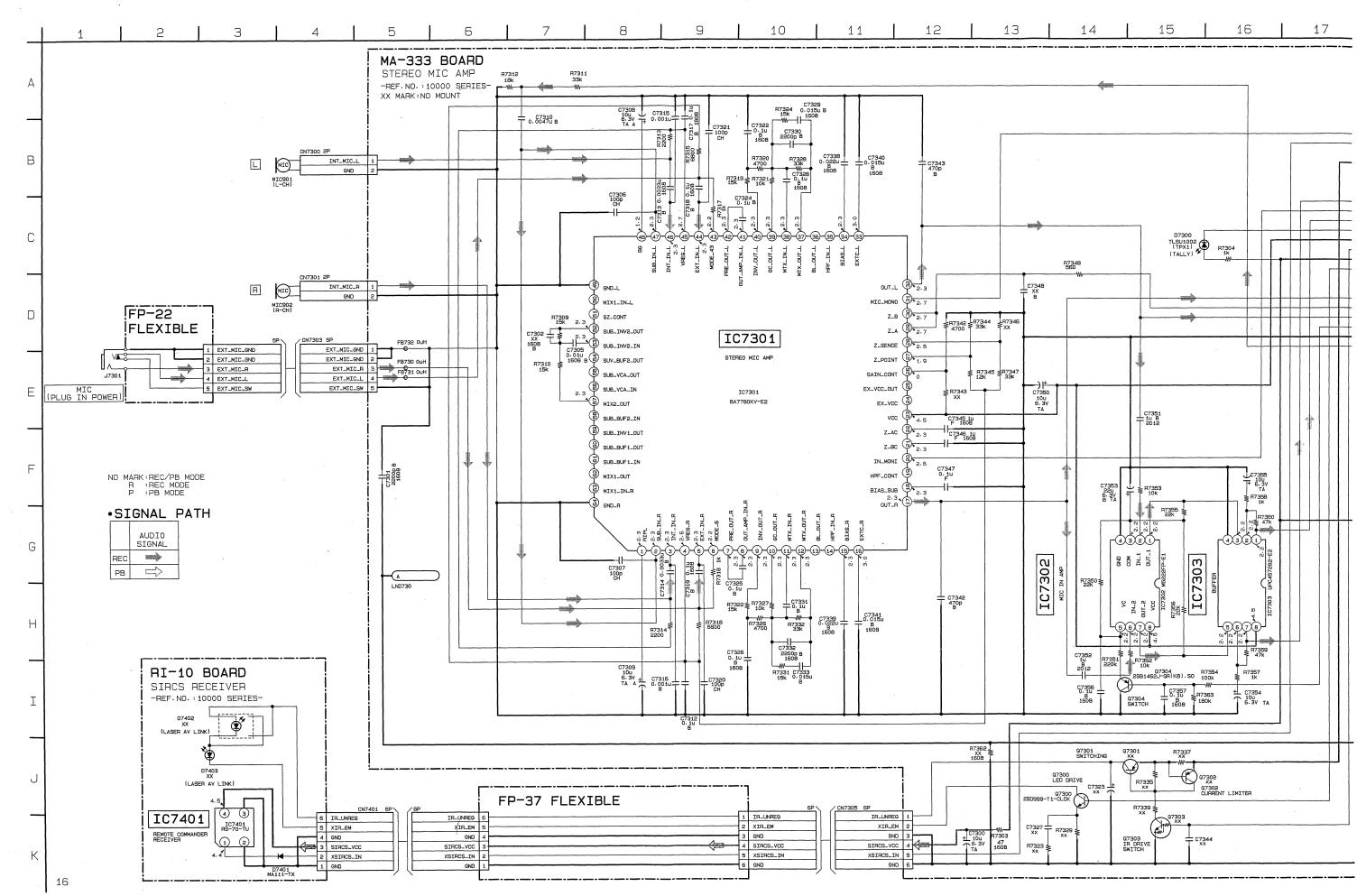


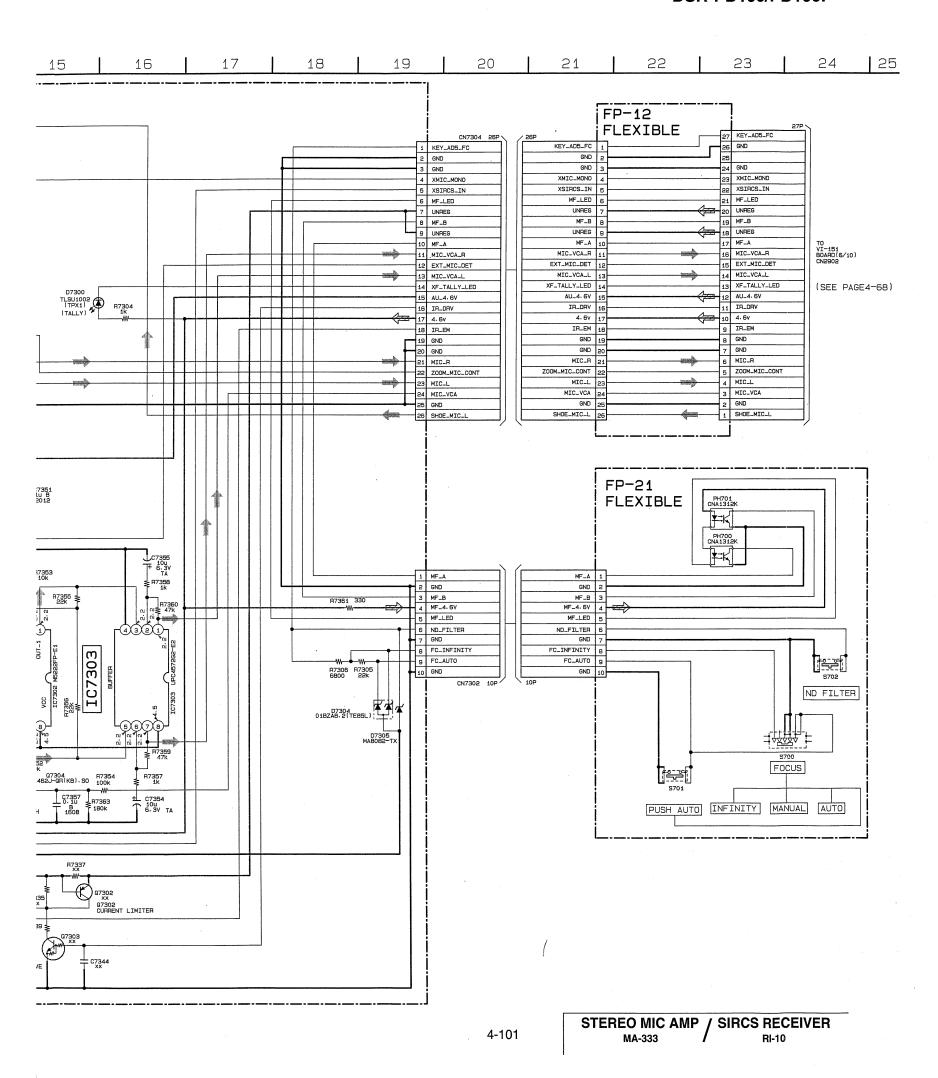
#### **RI-10 BOARD**

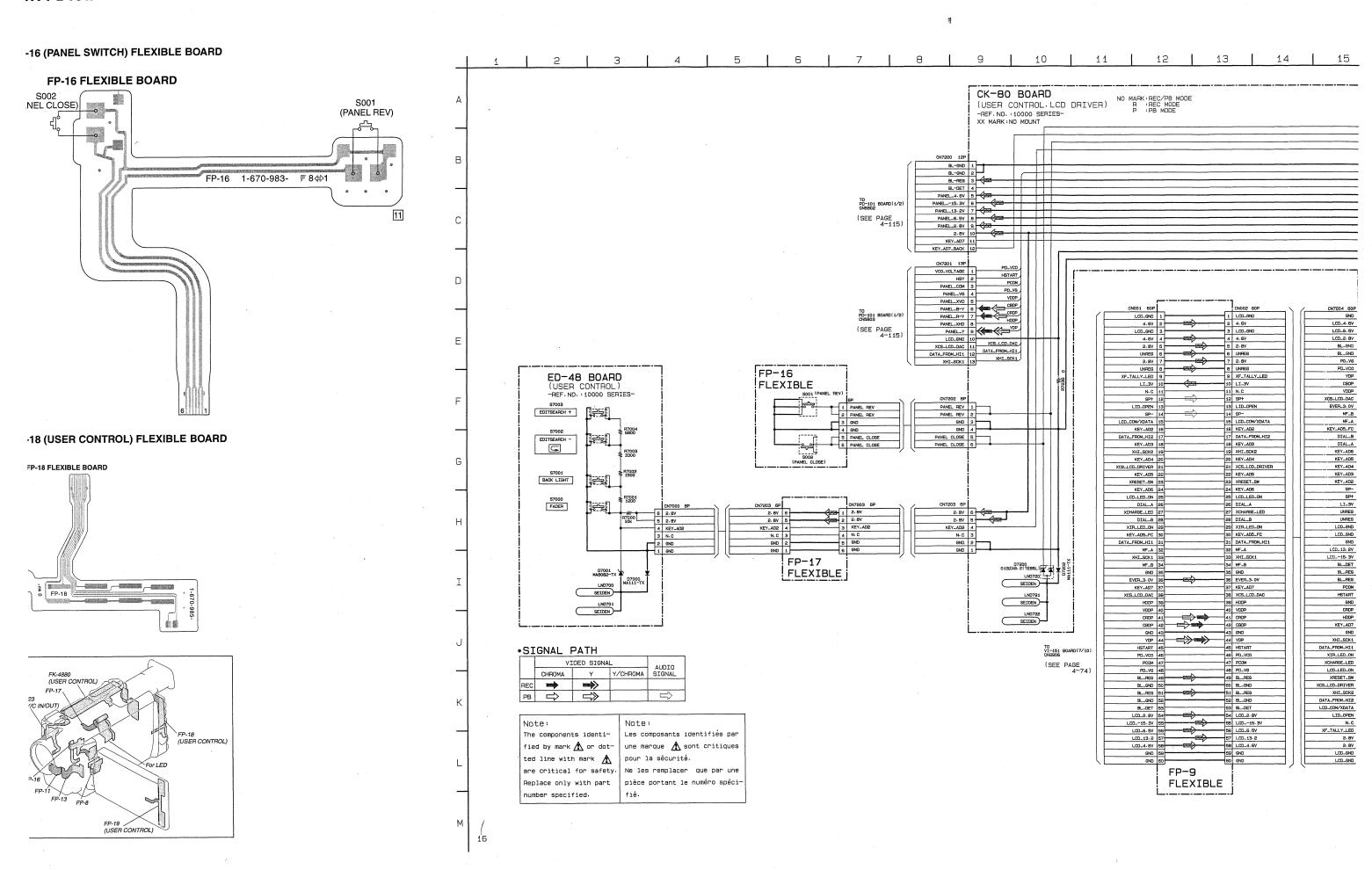
CN7401 A-3

D7401 A-3 D7402 B-1 D7403 B-2

IC7401 B-3







SER CONTROL 80, ED-48, FP-16, FP-18

15 | 16 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 13 | 14 | 17 | 18 | 19 **|** 27 28 | 29 | 30 | 31 | RK:REC/PB MODE :REC MODE :PB MODE AUTO LOCK AUTO LOCK MANUAL HOLD S7203 MEMORY S7206 MEMORY INDEX S7209 MEMORY DELETE ₩ R7229 R7210 1200 H7215 1500 R7219 3300 R7222 6800 R7224 22k R7225 22k R7200 FP-18 FLEXIBLE F7230 6800 R7205 10k CN7210 BP WHT BAL SHUTTER S7212 DATA CODE S7211 MEMORY PLAY TLSU1002(TPX1+SON R7202 10k S7201 END SEARCH X3S\_LED X3S\_LED ! 5 3S\_LED\_2.8V 35\_LED\_2-8V <del>.</del> ₹ 87232 1500 6 EXPOSURE EXPOSURE R7233 1200 GND : R7211 1200 R7216 1500 R7220 3300 SFL/ PUSH EXEC S102 PROGRAM AE S101 WHT BAL S100 SHUTTER SPEED R7228 10k S7210 ZEBRA D7207 01BZAB-2(TE85L) S7205 S720B 0FF ← 70% → 100% CN7211 68P 6ND 68 6ND C02 67 D10 66 09 D8 64 8V01 63 8V02 62 REG 61 REG PICTURE EFFECT CN7204 60P S7202 TITLE DIGITAL EFFECT 97223 22k GND 60 LCD\_4.6V 58 LCD\_6.5V 56 2D\_GND 1 4.6V 2 2D\_GND 3 4.6V 4 R7221 6800 1 LCD\_GND O 68 2 4.6V 3 LCD\_GND R7217 1500 R7212 1200 R7203 10k 00 LCD\_2.8V 5-4 4.6V S7213 RESET BL\_GND 52 2.8V 5 5 2. BV BL\_GND 50 PD\_VG 48 PD\_VC0 46 UNREG 6 6 UNREG 7 2.8V 00 PD\_VC0 UNREG 8 -Y\_LED 9 -LI\_3V 10 -B UNREG 00 9 XF\_TALLY\_LED 10 LI\_3V | INTRODE COP | SOLUTION | Soluti REG 51
RFU 60
WAIT 59
RESET 56
VS2 57
A25 56
GND 00 COM2 SEG2 SEG3 N- C 11 11 N.C SP+ 12 )\_OPEN 13 SP- 14 00 SEG4 SEG5 SEG6 14 SP-7 SEG4 8 SEG5 00 SEIDEN
LND723
SEIDEN
LND724
SEIDEN
LND725 'XDATA 15 IY\_AD2 16 IM\_HI2 17 A28 65 GNO

A23 64 GNO

A22 63

YPPE 52 YCC

A21 60 GNO

A22 63 GNO

A24 60 GNO

A25 63 GNO

A26 67 GNO

A27 60 GNO

A27 60 GNO

A28 67 GNO

A29 67 GNO

A29 67 GNO

A21 60 GNO

A21 60 GNO

A22 62 GNO

A23 62 GNO

A24 67 GNO

A25 67 GNO

A26 67 GNO

A27 67 GNO

A27 67 GNO

A28 67 GNO

A28 67 GNO

A29 67 GNO

A30 67 GNO

A31 67 GNO

A31 67 GNO

A32 67 GNO

A33 67 GNO

A41 28 GNO

A41 28 A2 A5

A4 A2 A5

A4 A5 24 A5

A5 23 A7

A2 A2 A5

A5 23 A7

A2 A5 A5

A5 23 A7

A2 A5 A5

A5 23 A7

A2 A5 A5

A5 A5 A5

A5 BON

A61 29 GNO

A61 31 GNO

A61 19 15 LCD\_COM/XDATA 16 KEY\_AD2 17 DATA\_FROM\_HI2 9 SEGS 10 SEG7 11 SEGS 12 SEG9 00 SEG7 SEGB SEG9  $\boxtimes$ DIAL\_B 28 Y\_AD3 18 \_SCK2 19 Y\_AD4 20 RIVER 21 18 KEY\_AD3 19 XHI\_SCK2 20 KEY\_AD4 DIAL\_A 26 07206 01BZAB. 2(TE85L) 00 KEY\_AD6 24 KEY\_AD5 22 KEY\_AD5 22

KEY\_AD4 20

KEY\_AD3 18

KEY\_AD2 16

SP- 14

SPH 12

LI\_3V 10

UNREG 8 SEG10 3 SEG10 SEG11 SEG12 14 SEG11 15 SEG12 16 SEG13 17 SEG14 18 SEG1 21 XCS\_LCD\_DRIVER 21 KCS\_LCD\_DRIVER
22 KEY\_AD5
23 XRESET\_SM
24 KEY\_AD5
25 LCD\_LED\_ON
26 DIAL\_A
27 XCHARGE\_LED
28 DIAL\_B
29 XIR\_LED\_ON
30 KEY\_AD5\_FC
31 DATA\_FROM\_HI1 Y\_AD5 22 ET\_SW 23 Y\_AD6 24 ED\_ON 25 ITAL\_A 26 E\_LED 27 00 SEG13 SEG14 SEG1 SEG16 00 BT7200 ATCHARGEABLE 19 SEG16 20 SEG15 00 SEG15 COM3 COM4 TTT + 1 | | D7204 01BZAB- 2(TEB5L) UNREG 8 21 COM3 22 COM4 IAL\_B 26 V/L RICH 00 ED\_ON 29 D5\_FC 30 M\_HI1 31 LCD\_GND 4 GND 5 31 DATA\_FROM\_H:
32 MF\_A
33 MHI\_SCK1
34 MF\_B
35 GND
35 EVER\_3.0V
37 KEY\_AD7
38 KSS\_LCD\_DAC
39 HDDP
40 VDDP
41 CRDP
42 CRDP LCD\_13.2V 57 OO SLOT CN7205 2P TO FP-13 FLEXIBLE BL\_DET 5 2 SP-1 SP+ BL\_REG 51 (SEE PAGE 4-46) 97201 25B1122-ST-TD 07200,7201 LCD +B SWITCH 00 7.6 8.1 7.6 R7206 ≢ HSTART 45 00 | D-VCD | 40 | CBDP | 42 | CBDP | 42 | CBDP | 44 | CBDP | 44 | CBDP | 44 | CBDP | 45 | CBDP | 46 | CBDP | 46 | CBDP | 47 | CBDP | 46 | CBDP | 47 | CBDP | 48 | CBD GND 43 CRDP 41 ₹ R7213 LCD\_LED\_ON 00 SEG16 SEG16 SEG13 SEG13 SEG11 R7204 10k HDDP 39 KEY\_AD7 37 GND 35 XHI\_SCK1 33 00 4 4 4 4 4 42 CBDP
43 GND
44 YDP
45 HSTART
46 PD\_VCO
47 PCOM
48 PD\_VG
49 BL\_REG
50 BL\_GND R7214 4700 R7207 **₩** XHI\_SCK1 00 DATA..FROM\_HI1 DATA\_FROM\_HI1 3: XIR\_LED\_ON 25 SEG18 SEG17 SEG15 SEG14 SEG14 SEG12 SEG12 00 XCHARGE\_LED 27 ¥<sup>D7209</sup> LCD\_LED\_ON | P7208 | P720 LCD\_LED\_ON 2 00 IL\_REG 49-IL\_GND 50 IL\_REG 51-XRESET\_SW XCS\_LCD\_DRIVER SEG10 0720B XX SEG9 CO 1.4
SEG8 CO 1.4
SEG6 CO 1.4 00 XHI\_SCK2 SEGB SEG7 SEG6 SEG5 SEG4 SEG3 51 BL\_REG 52 BL\_GND XHI\_SCK2 1 IC7200 L\_DET 53
L\_2.8V 54
-15.3V 55
L\_6.5V 56
-1.13.2 57
L\_4.6V 58
GND 59
GND 60 DATA\_FROM\_HI2 DATA\_FROM\_HI2 00 52 BL\_GRU

53 BL\_DET

54 LCD\_2. BV

55 LCD\_-15. 3V

56 LCD\_6. 5V

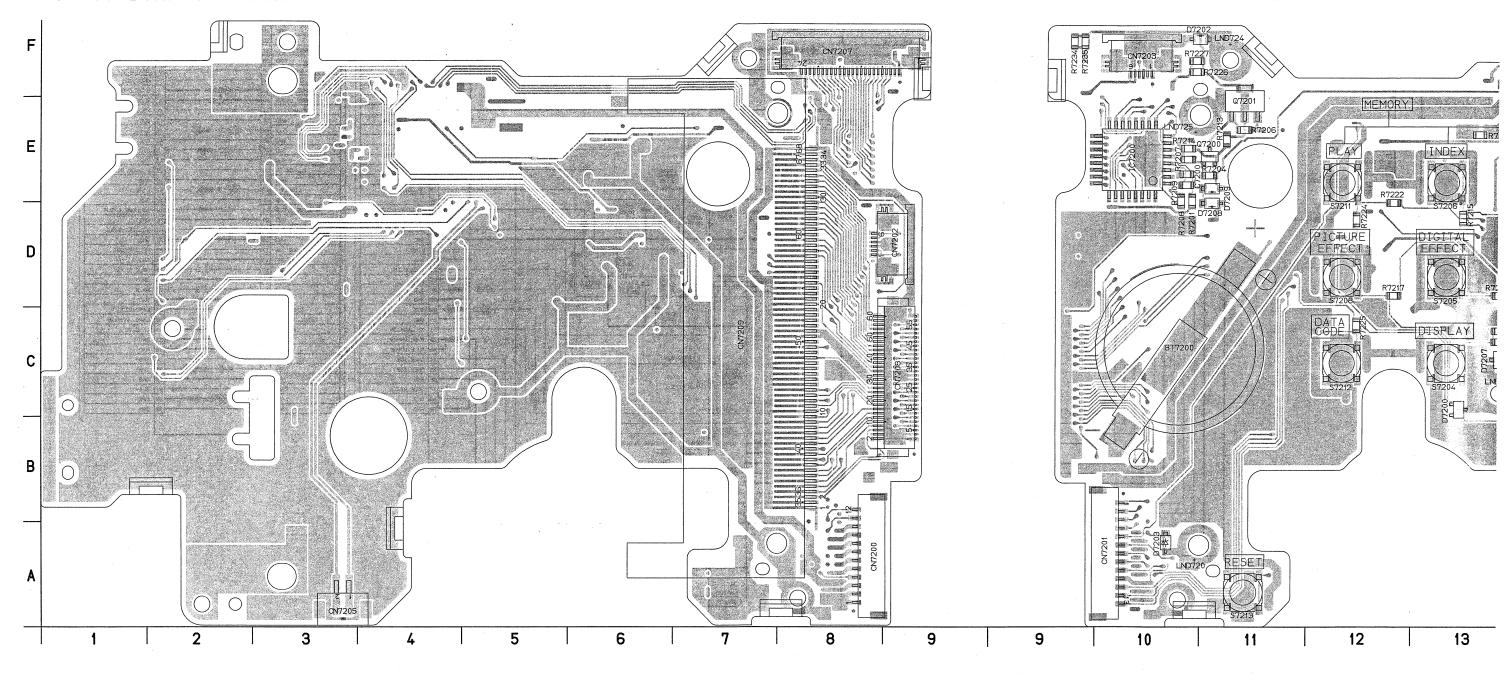
57 LCD\_13. 2

58 LCD\_4. 6V LCD\_COM/XDATA LCD DAIVER LID\_OPEN 1 IC7200 BU9729K-E2 XHI\_SCK2 DATA\_FROM\_HI2 N-C XF\_TALLY\_LED 9
2.8V 7
2.8V 5 00 XCS C/XD COM1 COM2 COM3 COM4 SEG1 SEG2 A11 10 OE
OE 9 A10
CE1 7 FP-9 00 FLEXIBLE COM/XDATA
COM1 0
COM2 1.4
COM3 1.4
COM3 1.4
COM4 1.4
SEG1 1.4 00 00

# CK-80 (USER CONTROL) PRINTED WIRING BOARD — Ref. No. CK-80 Board; 10,000 Series —

### CK-80 BOARD(SIDE A)

CK-80 BOARD(SIDE B)



4-107

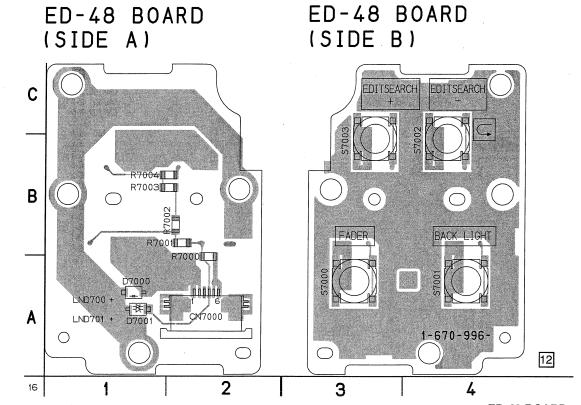
### B) UND723 CN7204 AUTO [∐]R7236 INDEX DELETE HOLD PICTURE EFFECT SEL/PUSE EXEC DISPLAY [∐]R7216 END SEARCH **∢** □ □ ANTI GROUND SHOOTING 5SEC 12 1-670-998-12 13 14 15 16 17 18

### CK-80 BOARD

CK-80 BOA	RD	
BT7200 C-10 C7200 E-10 C7200 E-10 C7200 A-8 CN7201 A-10 CN7202 D-9 CN7203 F-10 CN7205 A-3 CN7207 F-8 CN7207 F-8 CN7208 C-9 CN7201 D-17 D7200 C-13 D7201 D-16 D7202 F-10 D7203 A-10 D7203 A-10 D7204 E-15 D7206 D-16 D7207 C-13 D7208 E-11 D7207 C-13 D7208 E-11 D7201 C-16 D7212 C-16 D7214 D-16 D7215 D-16 D7214 D-16 D7215 D-16 D7216 E-10 D7200 E-11 D7200 E-11 D7200 E-11 D7201 E-11 R7200 D-16 R7201 E-10 R7201 E-10 R7201 E-10 R7202 C-14 R7203 D-16 R7203 D-16 R7204 E-11 R7205 D-16 R7206 E-11 R7207 E-10 R7208 E-10 R7208 E-11 R7207 E-10 R7208 E-10 R7208 E-11 R7207 E-10 R7208 E-10 R7208 E-10 R7208 E-10 R7208 E-10 R7209 E-10 R7209 E-10 R7209 E-10 R7209 E-10 R7201 E-15 R7211 C-13 R7211 C-13	R7213   R7214   R7215   R7216   R7217   R7218   R7219   R7220   R7221   R7222   R7223   R7224   R7225   R7226   R7227   R7228   R7229   R7230   R7231   R7232   R7233   R7233   R7235   R7236   S7200   S7201   S7202   S7203   S7204   S7205   S7207   S7206   S7207   S7208   S7207   S7208   S7210   S7211   S7212   S7213   S7214   S7215   S7210   S7211   S7212   S7213   S7211   S7212   S7219	E-1 E-10-1 C-1-1 B-10-1 B-

### **ED-48 (USER CONTROL) PRINTED WIRING BOARD**

- Ref. No. ED-48 Board; 10,000 Series -



### **ED-48 BOARD**

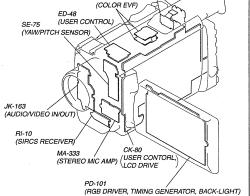
CN7000 A-2 D7000 A-1 D7001 A-1

R7000 A-2 R7001 B-2 R7002 B-2 R7003 B-2 R7004 B-2

S7000 A-3

S7001 A-4 S7002 B-4 S7003 B-3

# the diagram. ED-48

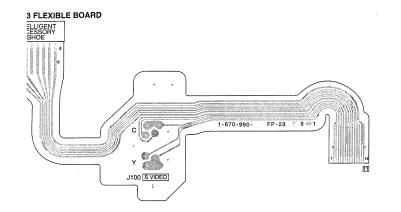


### For printed wiring boards

• This board is six-layer print board. However, the patterns of layers two to five have not been included in

There are few cases that the part printed on this diagram isn't mounted in this model.

### 23 (S VIDEO) FLEXIBLE BOARD



### JK-163 BOARD

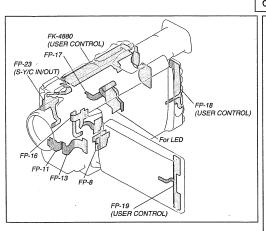
7100 7101 7102 7103 7104	C-4 D-4 C-5 D-4 C-1	FB715 FB716 FB717 FB718	C- C- C-
N7100 N7101 N7102	B-2 C-1	J7100 J7101 J7102	C- C- D-
7100 7102 7103 7104 7105	B-4 B-1 C-5 D-5 C-5	L7100 L7101 L7102 L7103 L7104	C- C- D- C-
B710	C-5 B-4	R7102 VDR711	C-
B711 B712 B713 B714	C-4 B-1 D-1 C-1	VDR714 VDR715 VDR717 VDR718	B- D-

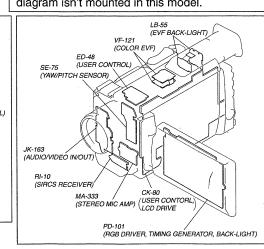
### For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts



There are few cases that the part printed on this diagram isn't mounted in this model.





JK-163 (AUDIO/VIDEO IN/OUT) PRINTED WIRING BOARD — Ref. No. JK-163 Board; 10,000 Series — JK-163 BOARD JK-163 BOARD (SIDE B) (SIDE A) AUDIO/VIDEO O J7102 O (ID-2) D HEADPHONE LANC 0 LND710 FB717 00 В DV IN/OUT Α 1-670-997-12 2 3 5 16

2

С

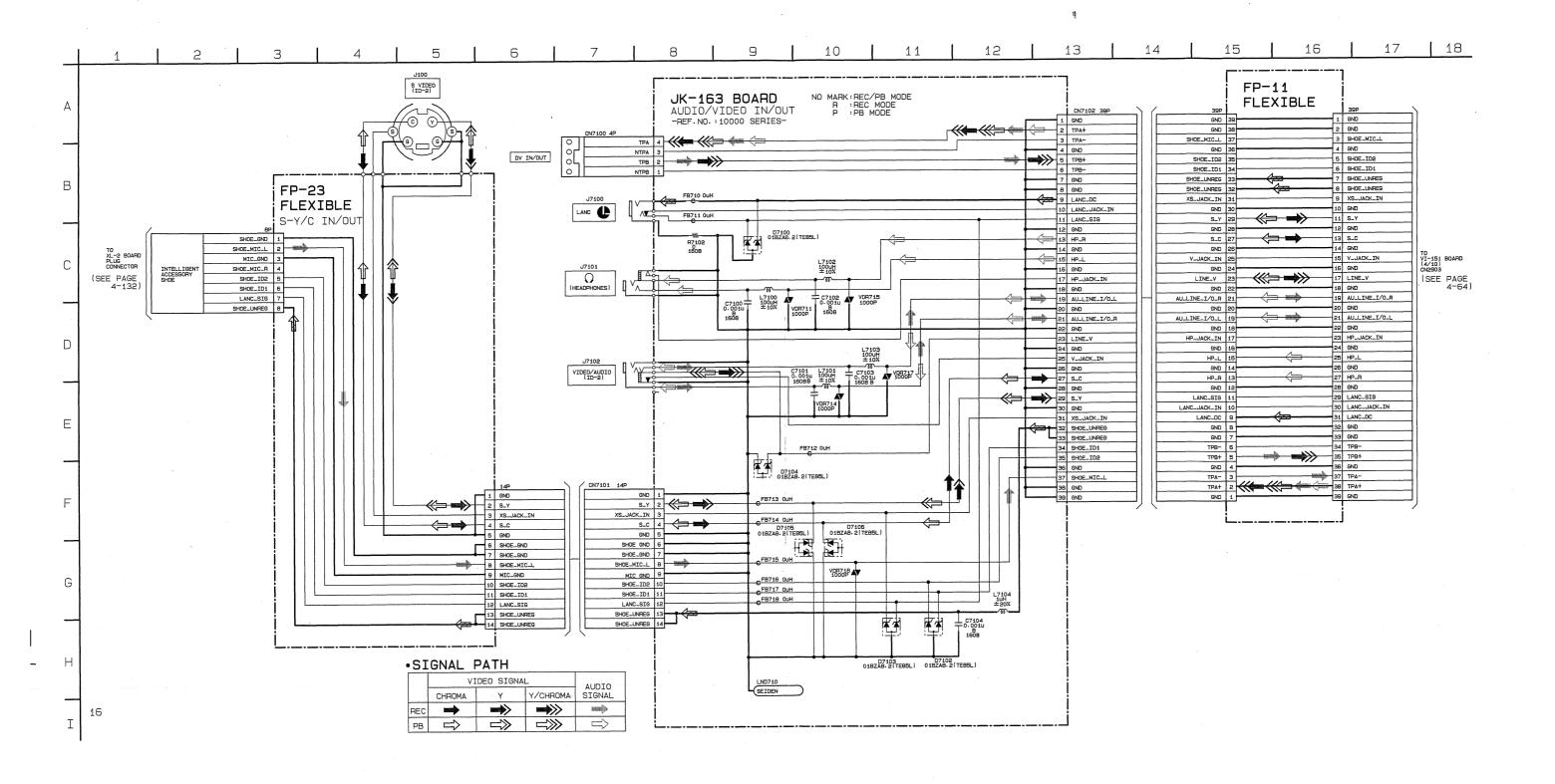
(SEE PAGE 4-132)

16

SHOE\_MIC\_L MIC\_GND

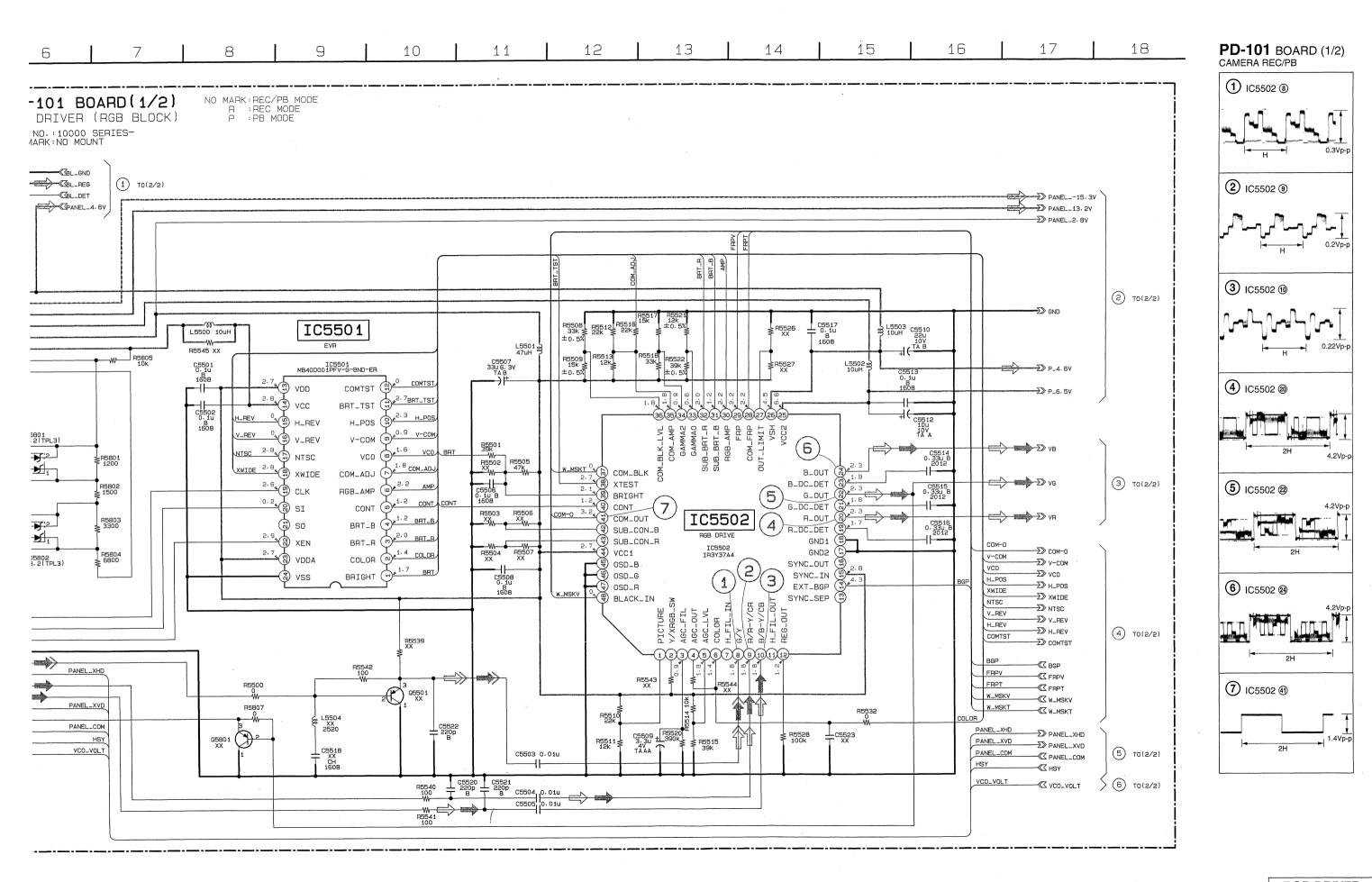
SHOE\_MIC\_R

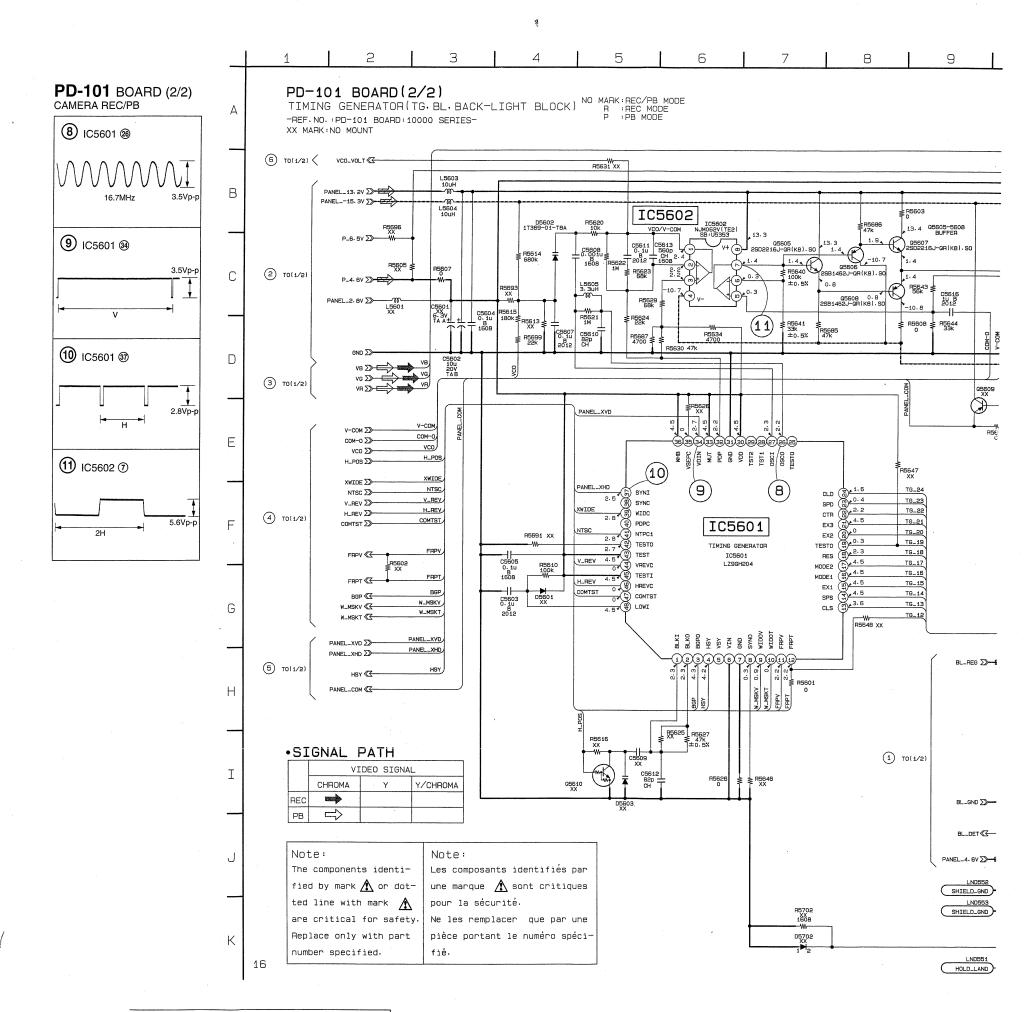
SHOE\_ID2 5
SHOE\_ID1 6
LANC\_SIG 7
SHOE\_UNREG 8

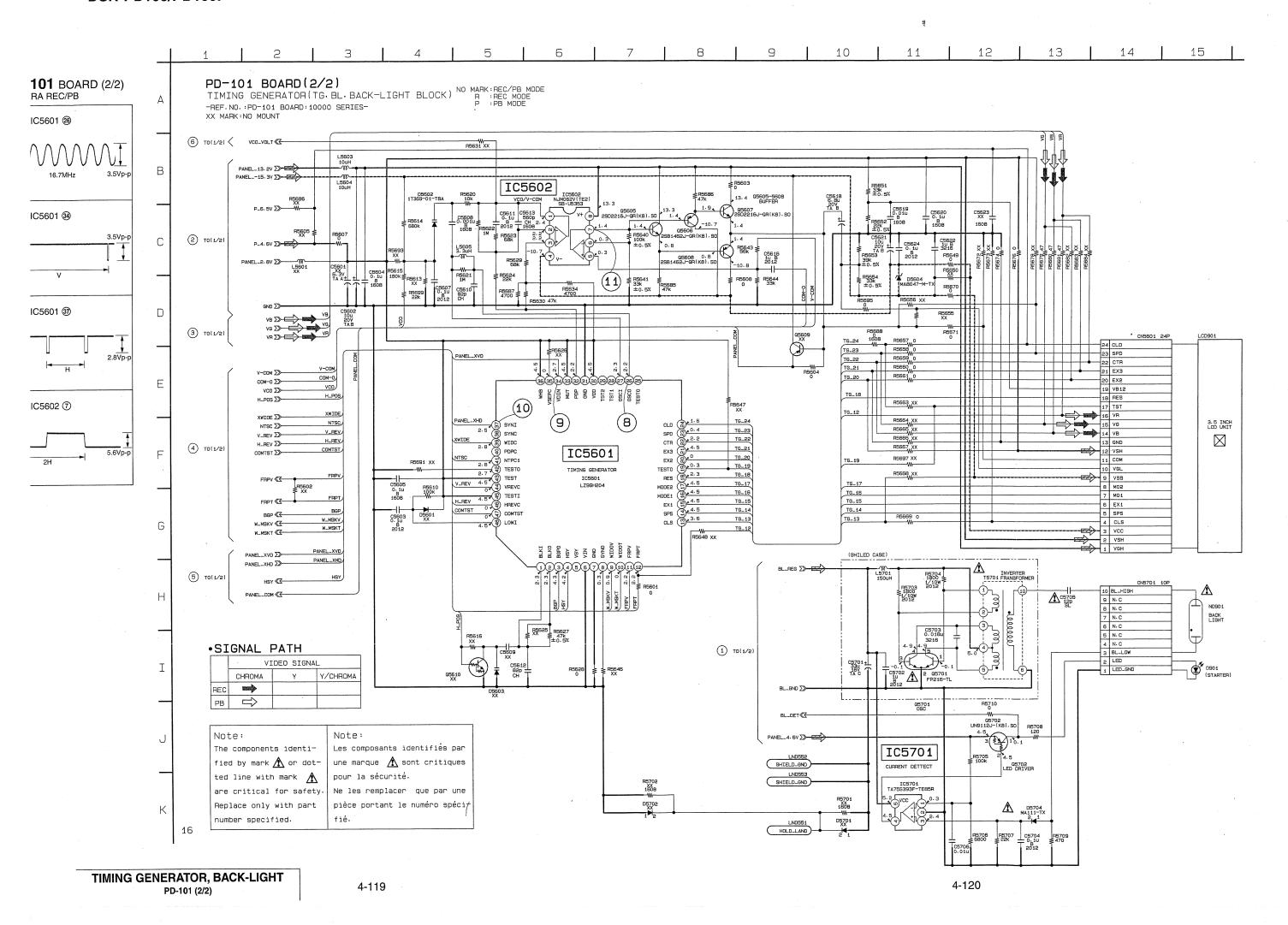


4-114

For schematic diagram • Refer to page 4-121 for PD-101 printed wiring board. Refer to page 4-121 for FP-19 flexible board. 3 5 4 6 8 9 10 11 12 13 14 PD-101 BOARD(1/2) NO MARK: REC/PB MODE R : REC MODE P : PB MODE Д :REC MODE RGB DRIVER (RGB BLOCK) -REF.NO.:10000 SERIES-XX MARK:NO MOUNT SBL\_GND ₩ CBL\_REG 1 TO(2/2) -≪3BL\_DET В PANEL\_4. 6V BL\_GND BL\_GND BL\_REG BL\_DET TO CK-80 BOARD PANEL\_4.6V PANEL\_-15.3V (SEE PAGE4-103) PANEL\_13, 2V PANEL\_6.5V L5500 10uH IC5501 R5526 XX PANEL\_2, 8V 2.87 R5545 XX FP-19 FLEXIBLE \_\_\_ R5805 10k KEY\_AD7 R5509 15k ≱ ±0.5% IC5501 MB40D001PFV-G-BND-ER -REF. NO. : 10000 SERIES-KEY\_AD7\_BACK  $\square$ VDD COMTST LCD BAIGHT 2. 7<sub>BRT\_TS</sub> VCC BRT\_TST H\_POS S502 D5801 01ZA8.2(TPL3) V-COM LCD BRIGHT 2.8 T (6)NTSC VCO XMIDE 5.8 (m) XMIDE 6 KEY\_AD7 KEY\_AD7 6 2.7 B XTEST Ē COM\_ADJ B\_OUT KEY\_AD7\_S1 KEY\_AD7\_S1 4 GND (A) CLK 2.1 BRIGHT B\_DC\_DET GND RGB\_AMP G\_OUT 1.2 CONT GND GND 0.2 CONT (4) CONT G\_DC\_DET 20M-0 3.2 COM\_OUT KEY\_AD7\_S2 KEY\_AD7\_S2 R5503 R5506 R5803 IC5502 R\_OUT (i) so KEY\_AD7\_S3 KEY\_AD7\_S3 1 BRT\_B ♥ 3 SUB\_CON\_B R\_DC\_DET !<del>. ≥∫₁</del> GND1 (B)
GND2 (C)
SYNC\_OUT (B)
SYNC\_IN (B)
EXT\_BGP (C)
SYNC\_SEP (B) RGB DRIVE VOLUME + SUB\_CON\_R M-H5504 XX 1.4 COLOR D5802 D1ZAB. 2(TPL3) IR3Y37A4 COLOR F OSD\_B OSD\_G OSD\_R OSD\_R BLACK\_IN BRIGHT (-) VSS S500 VOLUME -XHI\_SCK1 DATA\_FROM\_HI1 XCS\_LCD\_DAC R5539 XX GND G PANEL\_Y R5542 100 PANEL\_XHD TO CK-80 BOARD PANEL\_XHD  $\Rightarrow$ R5543 XX PANEL\_R-Y 2 Q5501 XX PANEL\_B-Y (SEE PAGE4-103) PANEL\_XVD PANEL\_XVD L5504 XX 2520 PANEL\_VG R5510 PANEL\_COM PANEL COM Q5801 2 HSY R5528 100k 十<sup>C5523</sup> Н VCO\_VOLT C551B XX CH 1608 VCO\_VOLT C5503 0.01u •SIGNAL PATH CN5803 13P C5520 C5521 2200 B C5504 B C5505 0.01u VIDEO SIGNAL CHROMA Y/CHROMA REC 16 PB  $\Rightarrow$  $\Rightarrow$ Ι



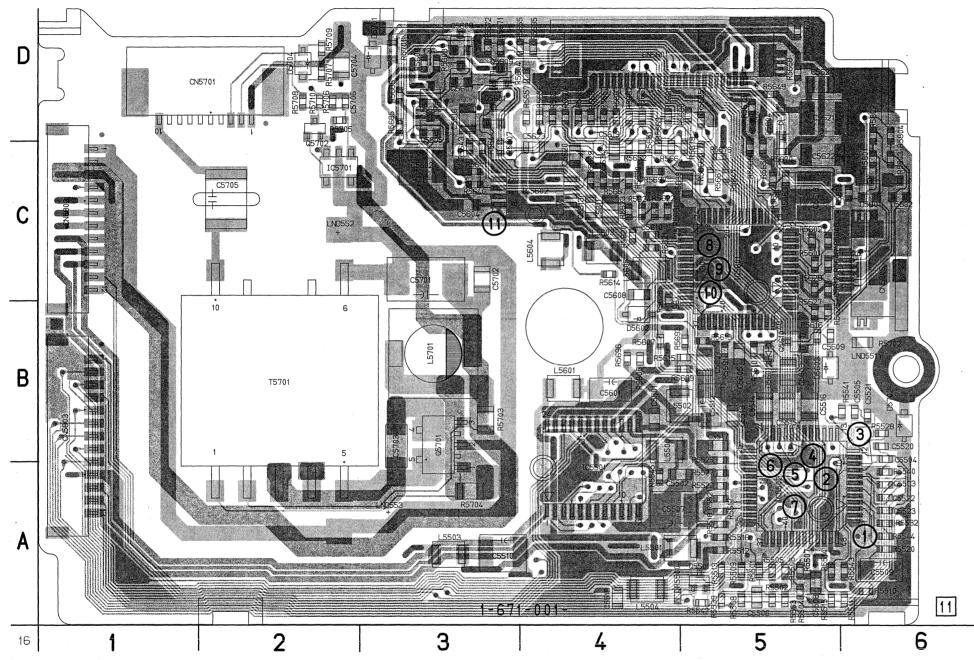




### PD-101 (RGB DRIVER, TIMING GENERATOR, BACK-LIGHT) PRINTED WIRING BOARD

- Ref. No. PD-101 Board; 10,000 Series -

### PD-101 BOARD (SIDE A)

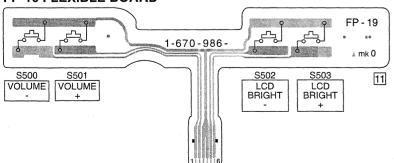


### PD-101 BOARD

C5501	B-4	C5706 D-2	R5501	A-5	R5623	C-4		R5682	D.
C5502	A-4		R5502	A-5	R5624	C-4		R5683	D.
C5503	A-6	CN5601 D-4	R5503	A-5	R5625	B-5		R5684	D-
C5504	B-6	CN5701 D-2	R5504		R5626	C-4		R5685	D-
C5505	B-6	CN5802 C-1	R5505		R5627	B-5		R5686	D.
C5506	A-5	CN5803 B-1	R5506		R5628	C-5		R5687	C-
C5507	A-4	CN5805 C-6	R5507		R5629	C-4		R5688	Č-
C5508	A-5	01100000 0 0	R5508		R5630	C-4		R5691	B-
C5509	A-6	D5601 B-5	R5509		R5631	C-4		R5693	B-
C5510	A-3	D5602 B-4	R5510		R5634	C-4	- 1	R5695	D.
25512	B-5	D5603 B-5	R5511		R5640	C-3		R5696	B-
	B-5 B-5		R5512		R5641	C-3		R5697	C-
C5513 C5514						C-3		R5699	B-
	B-5	D5701 D-3	R5513		R5643		1		D-
25515	B-5	D5702 B-6	R5514		R5644	C-3		R5701	
25516	B-5	D5704 D-2	R5515		R5646	C-5		R5702	B-
25517	B-5	D5801 C-6	R5516		R5647	C-5		R5703	B-
25518	A-4	D5802 C-6	R5517		R5648	C-5	.	R5704	A-
25520	B-6		R5518		R5649	D-5	l	R5705	D-
25521	B-6	IC5501 A-4	R5520		R5650	C-5		R5706	D-
25522	A-6	IC5502 A-5	R5521	A-5	R5651	C-4		R5707	D-
25523	A-6	IC5601 C-5	R5522		R5652	C-4	- 1	R5708	D-
25601	B-4	1C5602 C-4	R5526		R5653	C-5		R5709	D-
C5602	C-3	IC5701 C-2	R5527	A-5	R5654	C-5	- 1	R5710	D-
C5603	B-5		R5528	B-6	R5655	D-3		R5801	C-
25604	C-3	L5500 B-4	R5532	A-6	R5656	D-4		R5802	D-
25605	B-5	L5501 A-4	R5539	A-5	R5657	D-4		R5803	C-
25607	B-5	L5502 B-4	R5540	A-6	R5658	D-4	ŀ	R5804	D-
25608	C-4	L5503 A-3	R5541	B-6	R5659	D-4		R5805	Ç-
25609	B-5	L5504 A-4	R5542	A-5	R5660	D-4	l	R5807	C-
25610	C-4	L5601 B-4	R5543	A-6	R5661	D-4			
25611	C-4	L5603 C-4	R5544	A-6	R5663	C-4	- 1	T5701	B-
5612	C-5	L5604 C-4	R5545		R5664	C-4			
25613	C-4	L5605 C-4	R5601	C-5	R5665	D-5	- 1		
25616	D-3	L5701 B-3	R5602		R5666	C-5	- 1		
25618	C-5	20,0.	R5603		R5667	C-5			
25619	C-4	Q5501 A-5	R5604	D-4	R5668	D-5			
55620	C-4	Q5605 D-3	R5605	B-4	R5669	C-5	- 1		
25621	D-5	Q5606 D-3	R5607	B-4	R5670	C-5			
55622	C-5	Q5607 D-3	R5608	D-3	R5671	D-3	- 1		
35623	C-4	Q5608 D-3	R5610	B-5	R5672	D-3			
5624	D-5	Q5609 D-3	R5613	B-5	R5673	D-5	ſ		
	C-3	Q5610 B-5	R5614	C-4	R5674	D-5			
5701						C-5			
5702	C-3	Q5701 B-3	R5615	B-5 B-5	R5676 R5678	D-4			
5703	B-3	Q5702 D-2	R5616			C-5			
25704	D-2	Q5801 D-3	R5620	C-4	R5679		1		
5705	C-2	R5500 A-4	R5621 R5622	C-4 C-4	R5680 R5681	D-5 D-4			
		1 NOOUU A-4	1 80022	U-4	I boch i	D-4			

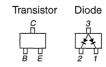
### FP-19 (USER CONTROL) FLEXIBLE BOARD

### **FP-19 FLEXIBLE BOARD**

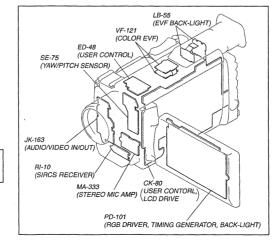


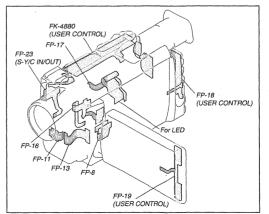
### For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts



There are few cases that the part printed on this diagram isn't mounted in this model.



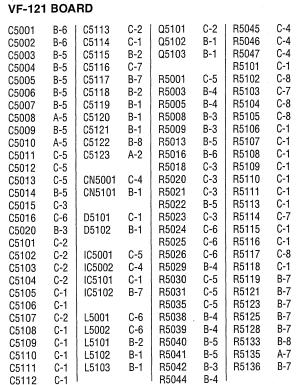


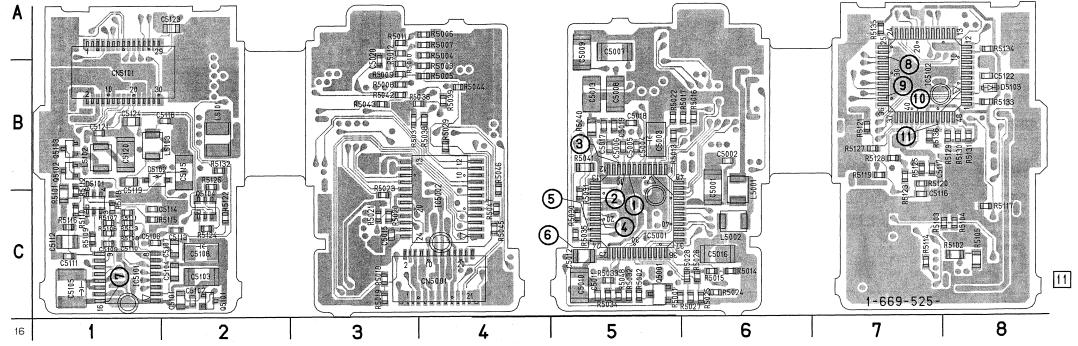
### VF-121 (COLOR EVF) PRINTED WIRING BOARD

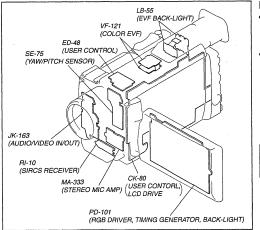
- Ref. No. VF-121 Board; 10,000 Series -

### VF-121 BOARD (SIDE A)

### VF-121 BOARD (SIDE B)





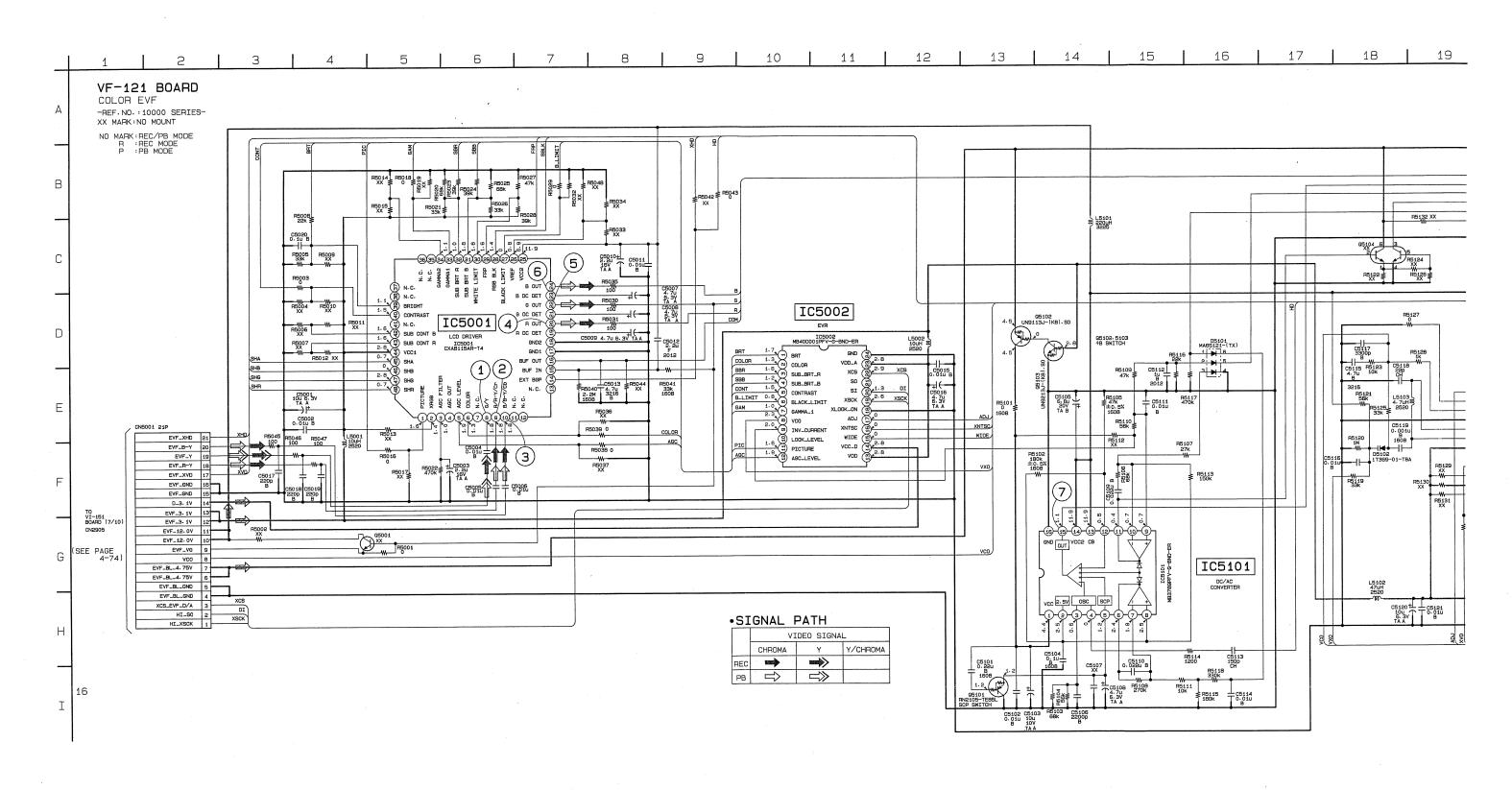


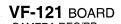
For printed wiring boards

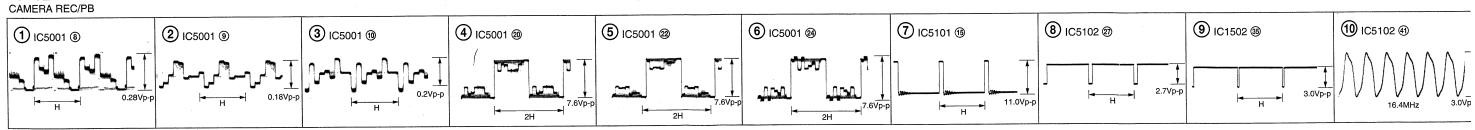
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts

Transistor Diode C 654 654 54 123 123

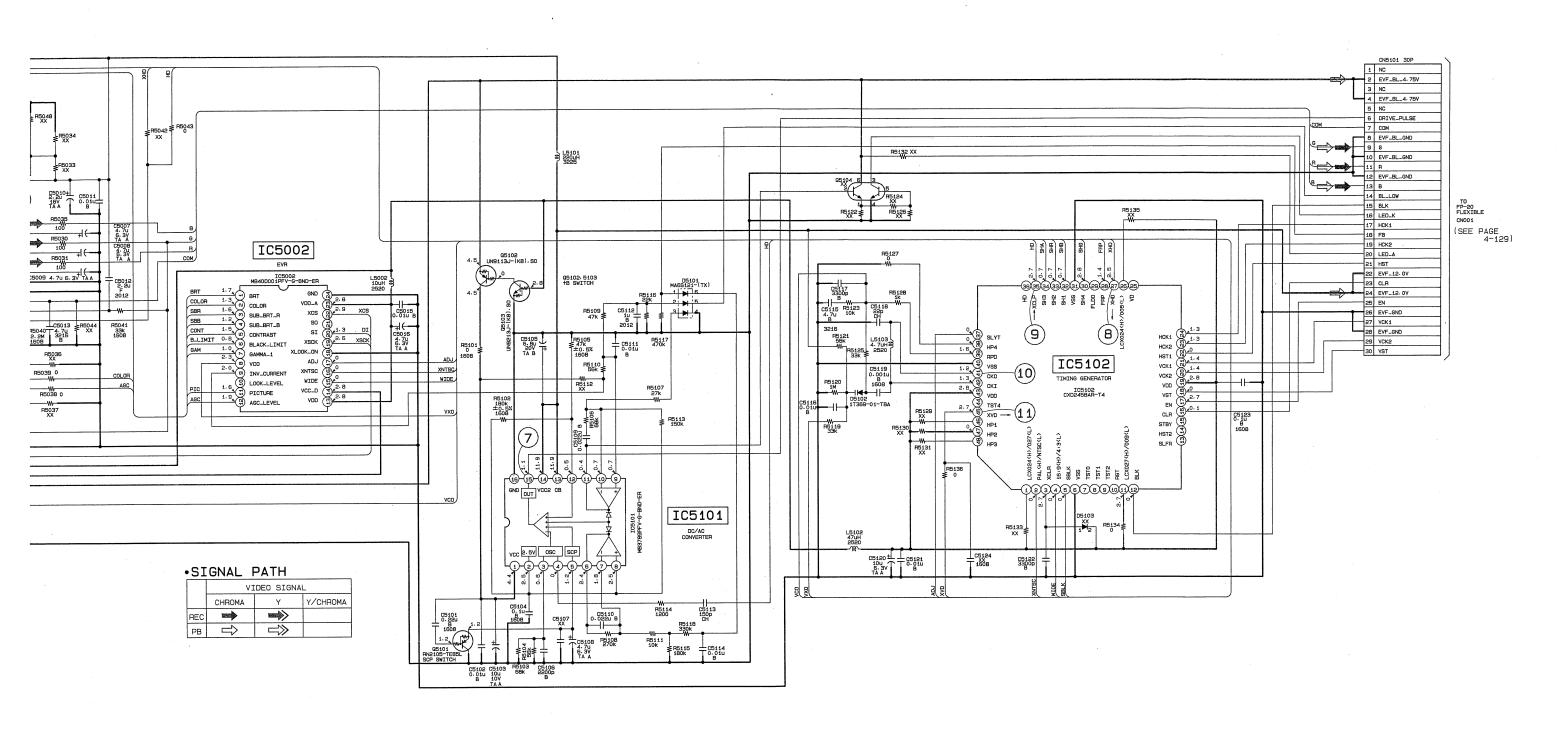
There are few cases that the part printed on this diagram isn't mounted in this model.

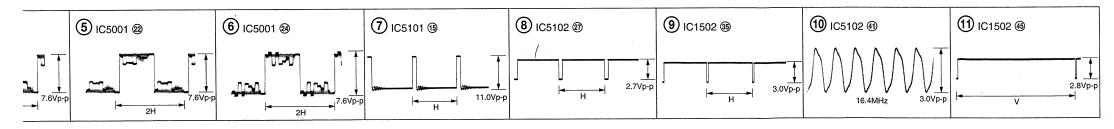


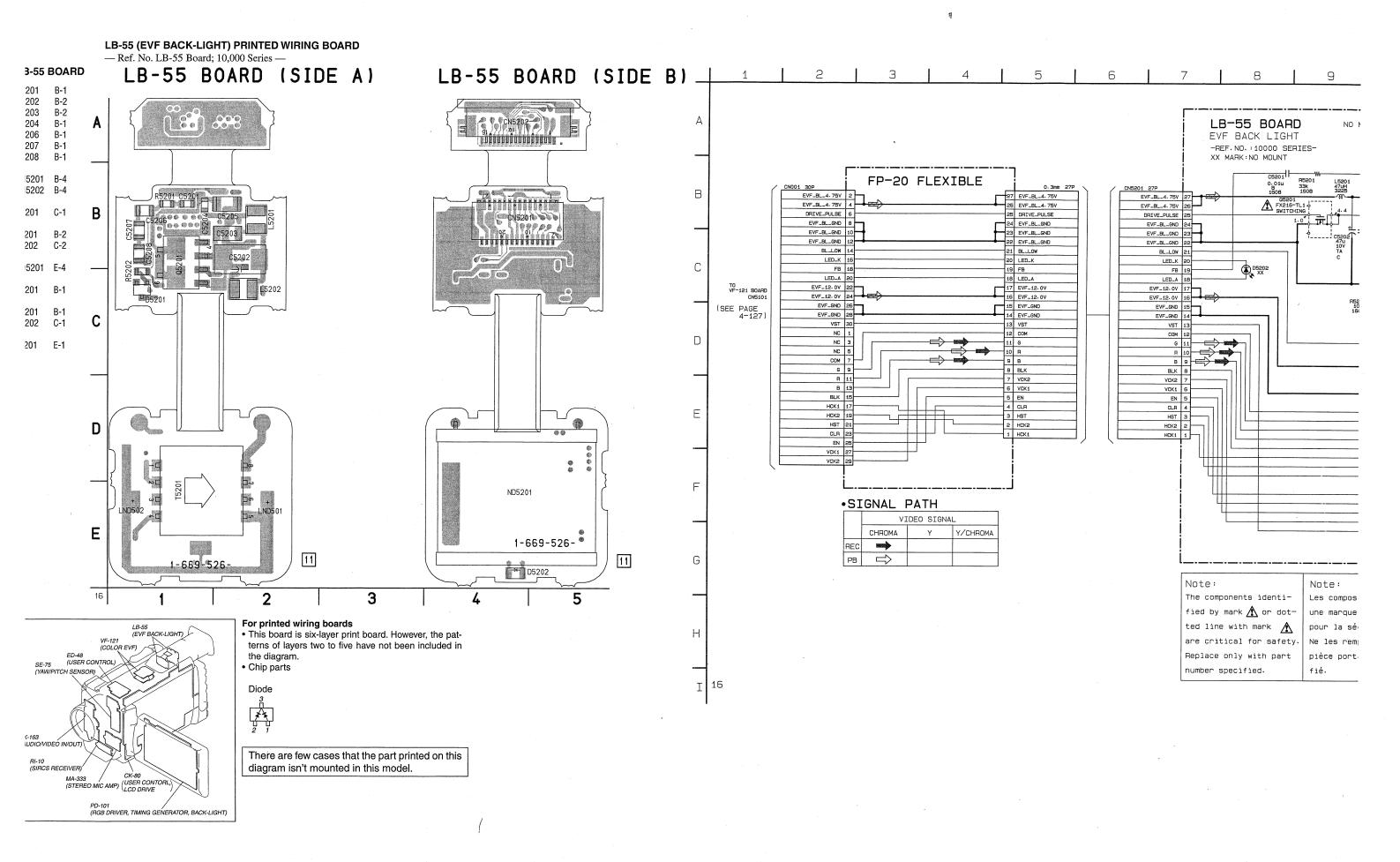


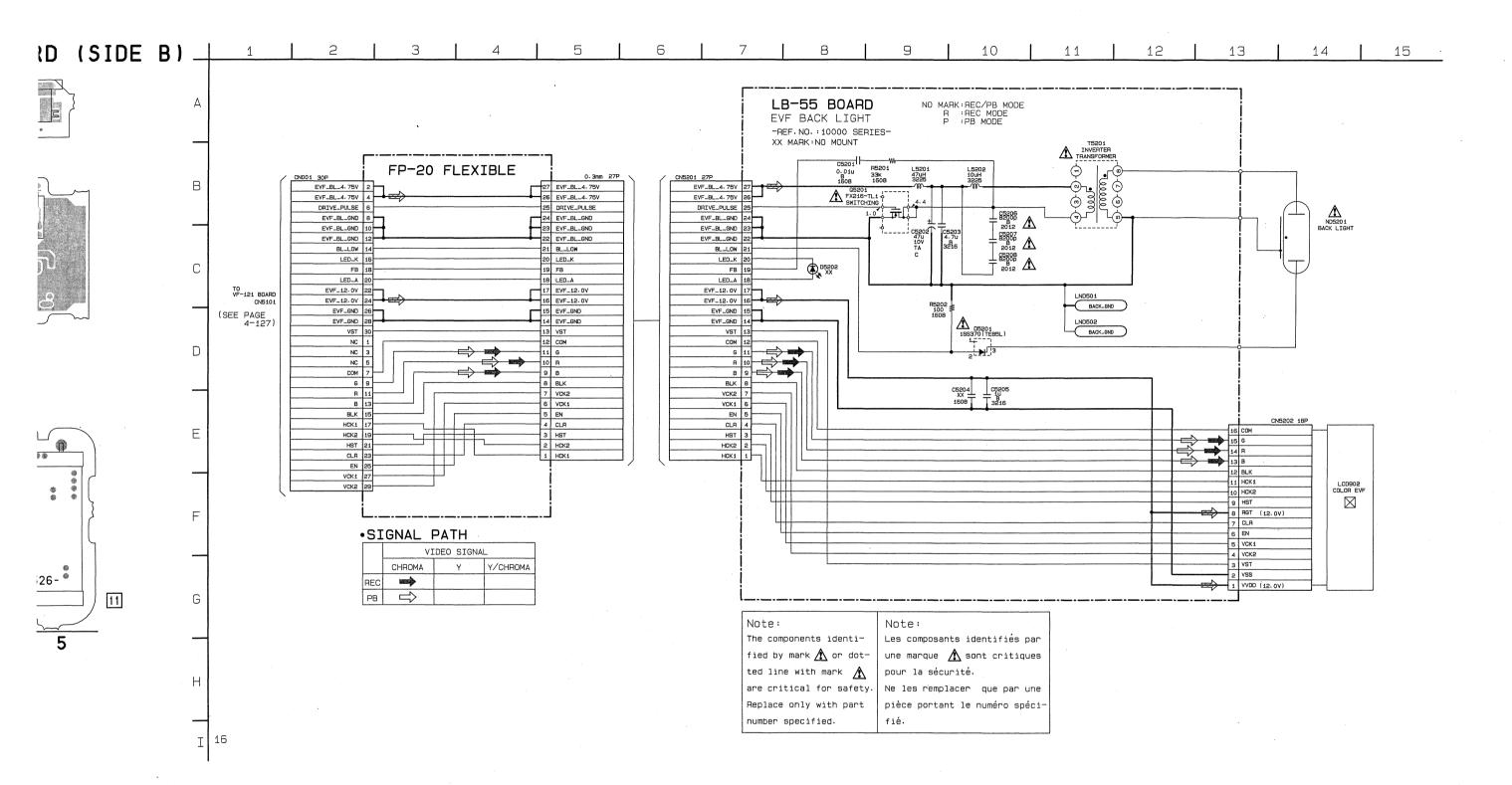


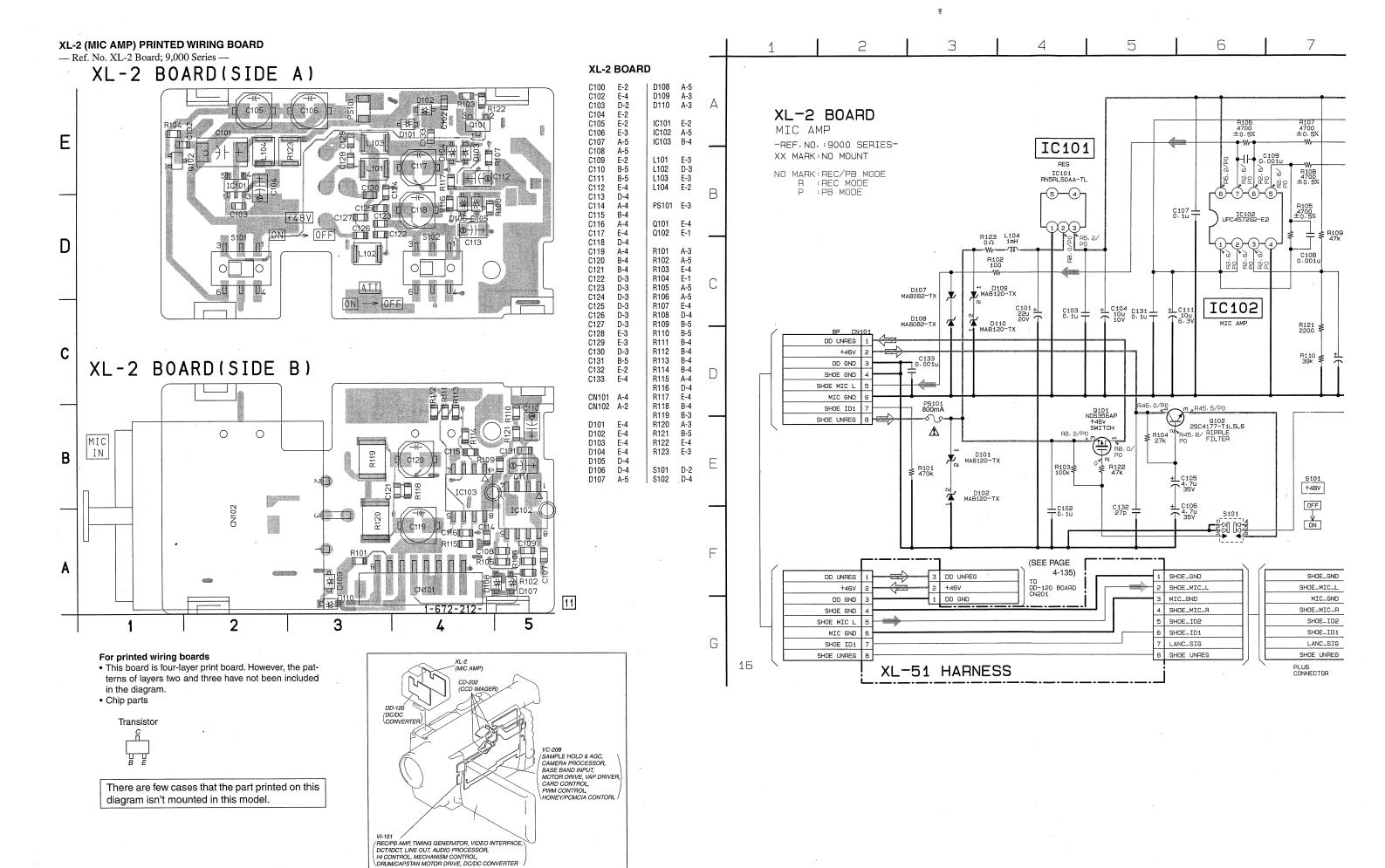
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26

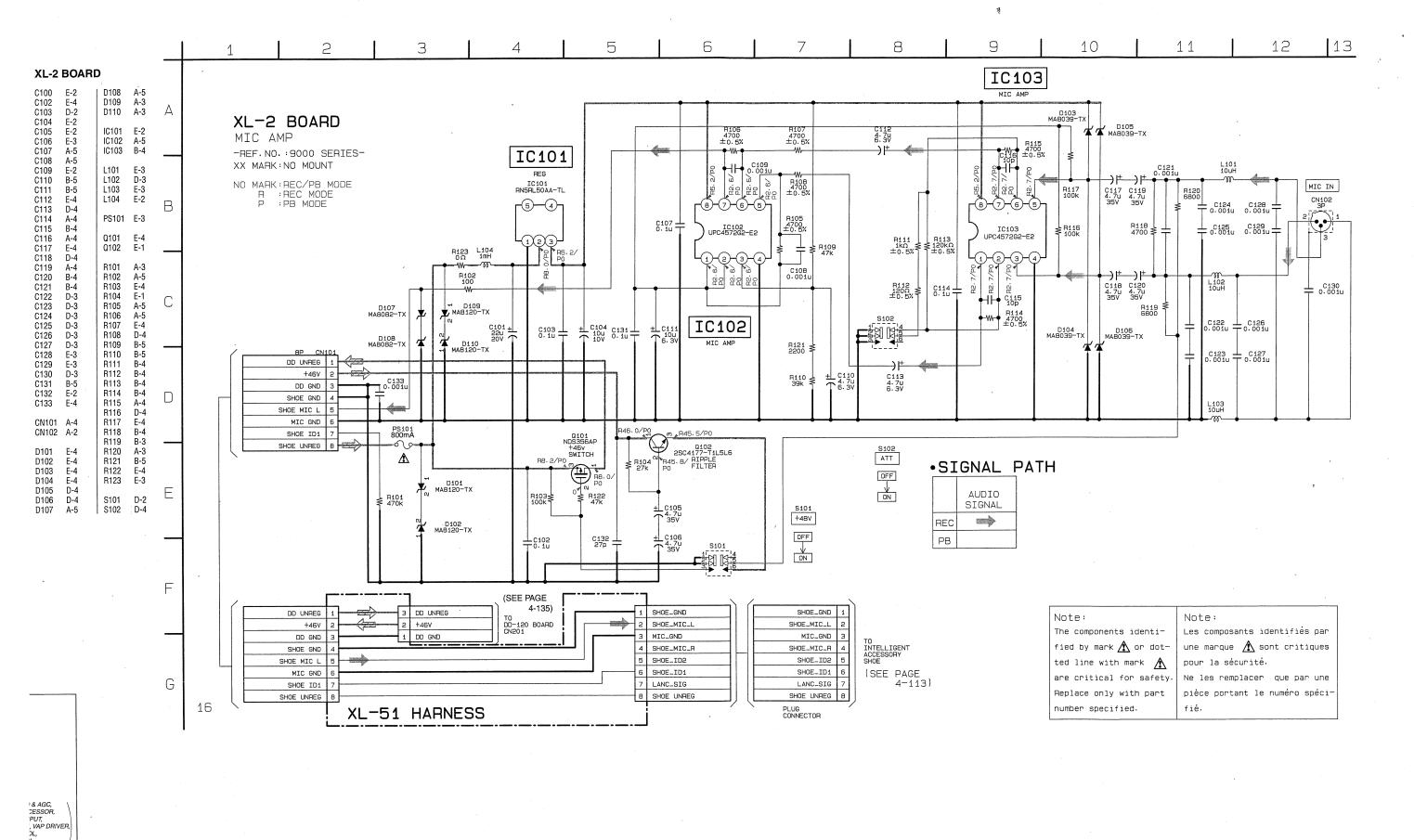












MIC AMP

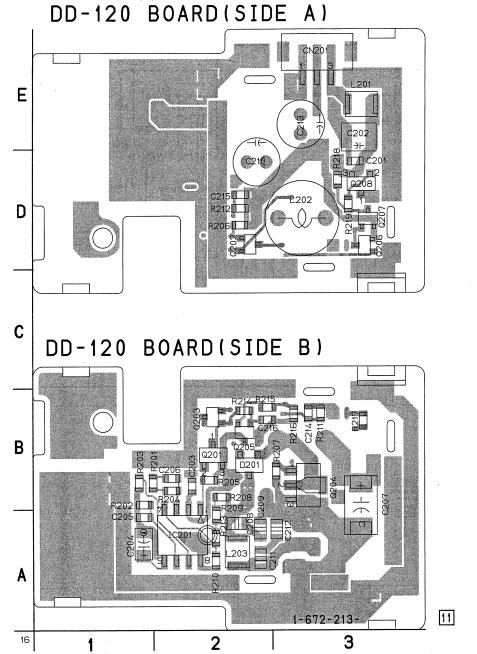
IL, IA CONTORL

### DD-120 BOARD

Q202 D-2 Q203 B-2 Q204 B-3 Q205 B-2 Q206 D-3 Q207 D-3 Q208 D-3 C201 C202 C203 C204 C205 C206 C207 C208 C209 C210 C211 C212 C213 C214 C215 C216 E-3 B-2 A-1 A-1 B-2 B-3 A-2 A-2 D-2 A-3 E-3 B-3 D-2 R201 R202 R203 R204 R205 R202 B-1 R203 B-1 R204 B-2 R205 B-2 R206 D-2 R207 B-3 R208 B-2 R209 A-2 R210 A-2 R211 B-3 R212 D-2 R213 A-2 R214 B-2 R215 B-2 R216 B-3 R217 B-3 R217 B-3 R218 D-3 R219 D-3 B-2 CN201 E-3 D201 IC201 A-2 L201 E-3 L202 D-3 L203 A-2 Q201 B-2

### DD-120 (DC/DC CONVERTER) PRINTED WIRING BOARD

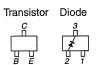
— Ref. No. DD-120 Board; 9,000 Series —



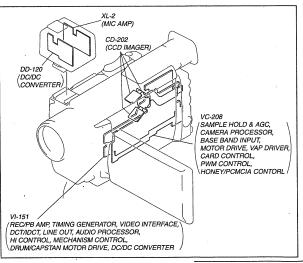
5 6 3 4 DD-120 BOARD NO MARK:REC/PB MODE R :REC MODE P :PB MODE DC/DC CONVERTER А -REF.NO.:9000 SERIES-XX MARK: NO MOUNT R201 2200 В IC201 R0.2/P0 R219 47k SWITCHING REG. R8.2/P0 Q202 2SC4177-T1L5L6 BUFFER CN201 RB. 2/P RO. 5/PO DD UNREG +46V DD GND 1 (SEE PAGE •R0,6/P  $\square$ Q203 2SA1611T1-M5M6 BUFFER C201 十 C202 10u 20V C203 0. 1u RO. 2/P Q207 2SC4177-T1L5L6 E 16

### For printed wiring boards

- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts

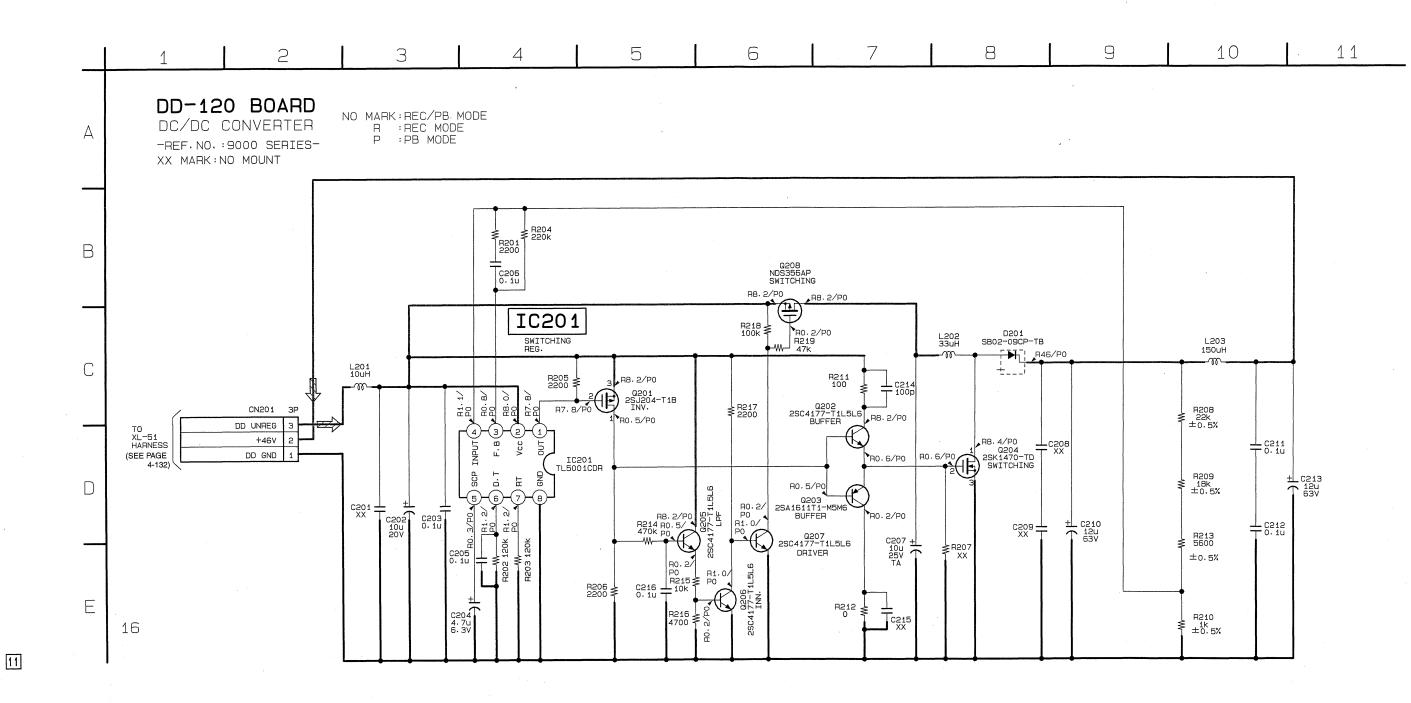


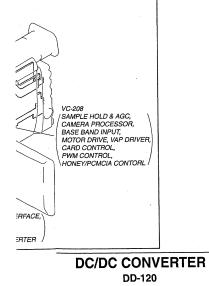
There are few cases that the part printed on this diagram isn't mounted in this model.



DC/DC CONVERTER
DD-120

4-135





DD-120

# SECTION 5 ADJUSTMENTS

### 5-1. CAMERA SECTION ADJUSTMENT

NTSC model: DSR-PD100 PAL model: DSR-PD100P

### 1-1. PREPARATIONS BEFORE ADJUSTMENT (CAMERA SECTION)

### 1-1-1. List of Service Tools

Oscilloscope

J-21

J-22 J-23

J-24

Mini DV torque cassette

Mode Selector II ROM

Mode Selector II

Bending stick

Regulated power supplyDigital voltmeter

• Vectorscope

• Color monitor

Ref. No.	Name	Parts Code	Usage
J-1	Filter for color temperature correction (C14)	J-6080-058-A	Auto white balance adjustment/check White balance adjustment/check
J-2	ND filter 1.0 ND filter 0.3	J-6080-808-A J-6080-818-A	White balance check White balance check
J-3	Pattern box PTB-450	J-6082-200-A	
J-4	Color chart for pattern box	J-6020-250-A	
J-5	Adjustment remote commander (RM-95 upgraded). (Note 1)	J-6082-053-B	
J-6	Siemens star chart	J-6080-875-A	For checking the flange back
J-7	Clear chart for pattern box	J-6080-621-A	
J-8	CPC-8 jig	J-6082-388-A	For adjusting the video section For adjusting the LCD system For adjusting the viewfinder
<b>J</b> -9	Extension cable (60P, 0.5 mm)	J-6082-431-A	For extension between the VC-208 board (CN761) and the CK-80 board (CN7208)
J-10	Extension cable (100P, 0.5 mm)	J-6082-432-A	For extension between the VC-208 board (CN900) and the VI-151 board (CN2901)
J-11	Extension cable (39P, 0.3 mm)	J-6082-433-A	For extension between the JK-163 board (CN7102) and the VI-151 board (CN2903)
J-12	Cleaning fluid	Y-2031-001-0	
J-13	Wiping cloth	7-741-900-53	
J-14	Super fine applicator (made by NIPPON APPLICATOR (P752D))	<del>-</del>	
J-15	Mirror (Small oval type)	J-6080-840-A	
J-16	Screwdriver for tape path	J-6082-026-A	Tape path for adjusting tape guide
J-17	Torque driver	J-9049-330-A	
J-18	TG1 adjustment jig	J-6082-420-A	FWD position adjustment
J-19	Mode selector conversion board (C)	J-6082-417-A	
J-20	Tracking tape (XH2-1A1)(NTSC/PAL)	8-967-999-03	

J-6082-314-D

J-6082-419-A

J-6082-282-A For all operating

J-6082-360-A For FWD torque, REV torque and FWD back tension

Corresponds to C mechanism (Note 2)

Note 1: If the microprocessor IC in the adjustment remote commander is not the new microprocessor (UPD7503G-C56-12), the pages cannot be switched. In this case, replace with the new microprocessor (8-759-148-35).

Note 2: ROM for version upgrading to allow use of the mode selector II with the C mechanism.

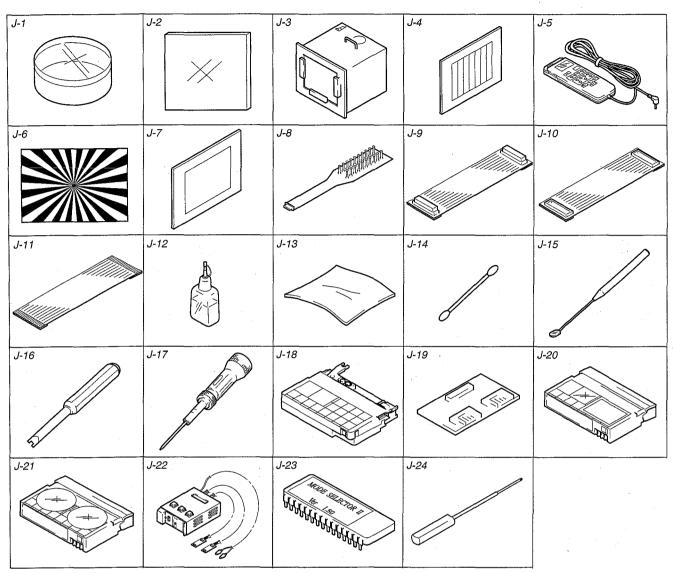


Fig. 5-1-1

1-1-2. Preparations

Note 1: For details of how remove the cabinet and boards, refer to "2. DISASSEMBLY".

Note 2: When performing only the adjustments, the lens block and boards need not be disassembled.

- 1) Connect the equipment for adjustments according to Fig. 5-1-
- 2) The front panel block (MA-333 board, focus ring, focus switch, ND filter switch, microphone unit) must be assembled because the focus ring and ND filter switch are used for adjustments.
- 3) The viewfinder (VF-121 board, LB-55 board) and upper cabinet (LCD window, ED-48 board) are need not be connected. To remove them, disconnect the following connectors.
  - 1. VI-151 board CN2905 (20P, 0.5 mm)
  - 2. CK-80 board CN7207 (24P, 0.5 mm)
  - 3. CK-80 board CN7203 (5P, 0.5 mm)
- Note 3: As removing the cabinet (R) (removing the VI-151 board CN2906) means removing the lithium 3V power supply (BT7200), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on history use (data of page: 2, address: A2 to AA). (Refer to "SELF-DIAGNOSIS FUNCTION" for the self-diagnosis data, and to "5-4. Service Mode" for the data on the history use.)
- Note 4: Setting the "Forced Camera Power ON" Mode
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: O, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander. The above procedure will enable the camera power to be turned on with the operation switch block (FK-4880) removed. After completing adjustments, be sure to exit the "Forced Camera Power ON Mode".
- Note 5: Exiting the "Forced Camera Power ON" Mode
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
  - 3) Select page: 0, address: 01, and set data: 00.

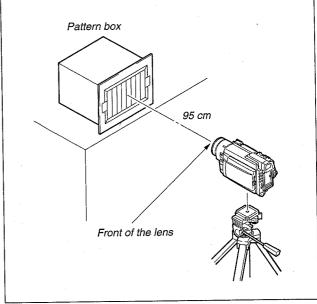


Fig. 5-1-2

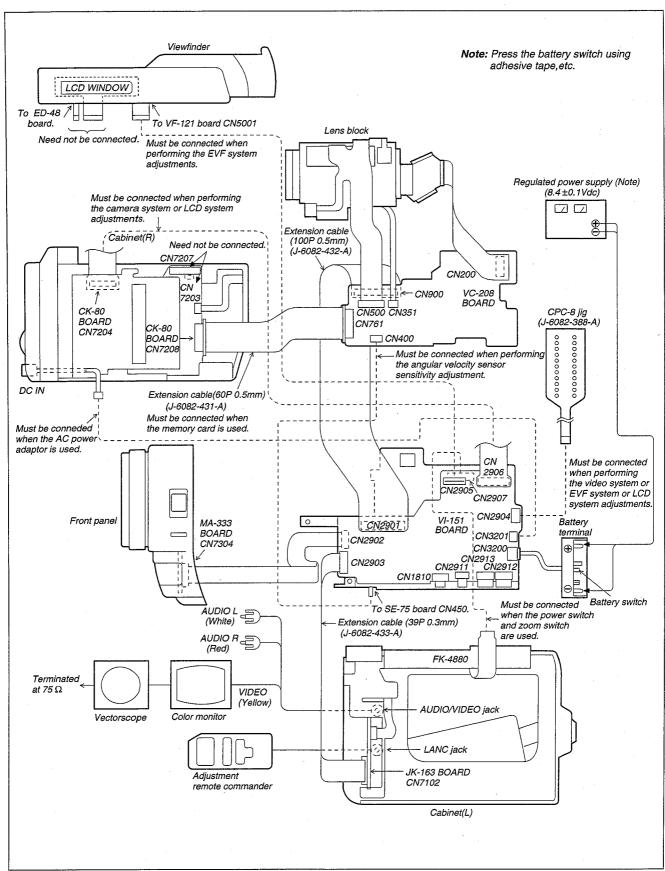


Fig. 5-1-3

### 1-1-3. Precaution

### 1. Setting the Switch

Unless otherwise specified, set the switches as follows and perform adjustments without loading cassette

auju	ISTITICITES MITHOUT TOUGHTS cassocies.	
1.	POWER switch (FK-4880 block)	CAMERA
2.	DIGITAL ZOOM (Menu display)	OFF
3	STEADY SHOT (Menu display)	OFF
1	DISPLAY (Menu display)	V-OUT/LCD
<del>-</del>	DISPLAY (CK-80 board)	ON
J.	AUTO LOCK (CK-80 board)	AUTC
0.	ND FILTER	OFF
7.	ND FILTER	

8.	FOCUS switch (FP-21)	MANUAL
9.	BACK LIGHT (ED-48 board)	OFF
10.	PICTURE EFFECT (CK-80 board)	OFF
	DIGITAL EFFECT (CK-80 board)	
	16: 9 WIDE (Menu display)	
	AUTO SHUTTER (Menu display)	
	PROG.SCAN (Menu display)	
~	T 27	

### 2. Order of Adjustments

Basically carry out adjustments in the order given.

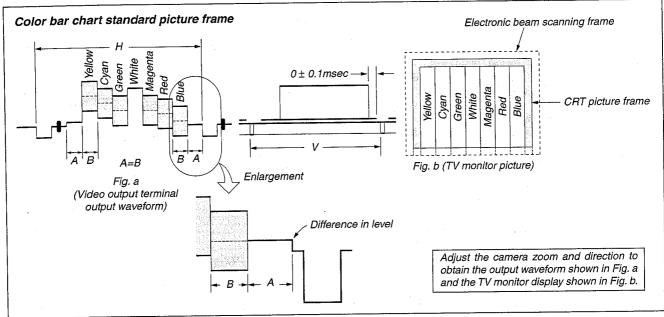
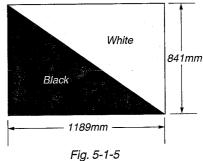


Fig. 5-1-4

### 3. Subjects

- Color bar chart (Standard picture frame).
  - When performing adjustments using the color bar chart, adjust the picture frame as shown in Fig. 5-1-4. (Standard picture frame)
- 2) Clear chart (Standard picture frame)
  - Remove the color bar chart from the pattern box and insert a clear chart in its place. (Do not perform zoom operations during
- 3) Flange back adjustment chart
  - Make the chart shown in Fig. 5-1-5 using A0 size (1189 mm  $\times$ 841 mm) black and white vellum paper.



Note: Use matte vellum paper bigger than A0, and make sure the edges of the black and white paper joined together are not rough.

### 1-2. INITIALIZATION OF F, E PAGE DATA

### 1. Initializing the F, E Page Data

**Note:** If the F, E page data is initialized, the following adjustments must be performed again.

- 1) Modification of F, E Page Data
- 2) Camera System Adjustments

Adjusting page	F
Adjusting Address	10 to FF
Adjusting page	Е
Adjusting Address	00 to 9B

### **Initializing Method:**

- 1) Set the power switch to the CAMERA position.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 6, address: 01, and set data: 2D (NTSC) or data: 2F (PAL), and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 6, address: 03, set data: 01, and press the PAUSE button of the adjustment remote commander.
- 5) Select page: 6, address: 02, and check that the data is "01".
- 6) Perform "Modification of F, E Page Data".

### 2. Modification of F, E Page Data

If the F, E PAGE data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

### **Modifying Method:**

- 1) Before changing the data, select page: 0, address: 01, and set data: 01.
- 2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

**Note:** If copy the data built in the different model, the camcorder may not operate.

- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value.
   If not, change the data to the initial value.

#### Processing after Completing Modification of F, E Page data

- 1) Select page: 2, address: 00, and set data: 29.
- 2) Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- 3) Perform the "Camera System Adjustments".

### 3. F Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the F, E

Page Data")

Fixed data-2: Modified data. (Refer to "2. Modification of F, E Page Data")

^ ddroop	l .	value	Remark	
Address	NTSC	PAL	nelliaik	
00 to 0F				
10			Fixed data-1	
11			(Initialized data)	
12				
13				
14			•	
15				
16				
17				
18				

Address		value	Remark
	NTSC	PAL	
19			Fixed data-1
1A			(Initialized data)
1B	- 00	- 00	100.00
1C	80	· 80	27MHz origin osc. adj.
1D		- 60	Fixed data-1
1E	60	60	IRIS & ND HALL adj.
1F	40	60	AW/D at and data insurt
20	28	28	AWB standard data input
22	00	00	
23	50	50	
24	8E	2C	Flange back adj.
25	1A	17	Trange back adj.
26	80	78	
27	24	1D	
28	65	FB	
29	11	12	· .
2A		<u> </u>	Fixed data-1
2B			
2C	64	64	Max gain adj.
2D		·	Fixed data-1
2E			(Initialized data)
2F			
30			
31			
32			
33			
34	88	90	Auto white balance adj.
35	6C	8F	
36	D6	D6 .	Flange back adj.
37	E6	E6	
38	15	23	·
39	45	10	
3A 3B	3F 3F	19	
3C	16	27	
3D	A8	A8	
3E	80	80	LV standard data input
3F	76	76	27 Standard data Input
40	70	70	Fixed data-1
41	50	50	Angular velocity sensor sensitivity
42	50	50	adj.
43			Fixed data-1
44	D5	D5	Color reproduction adj. (1)
45	EC	EC	(ND filter OFF)
46	20	20	
47	20	20	
48	60	60	IRIS & ND HALL adj.
49	40	60	
4A	00	00	WB ND filter compensation adj.
4B	00	00	
4C	89	89	IRIS & ND HALL adj.
4D	-		Fixed data-1
4E			(Initialized data)
4F			
50			Fixed data-2

<b>A</b> -1 -1	Initial	value	Bomoule
Address	NISC	PAL	Remark
51		Parting.	Fixed data-2
52			Fixed data-1
53			(Initialized data)
54			
55	)		
56			
57			Fixed data-2
58			Fixed data-1
59	1		(Initialized data)
5A	1		
5B	1		•
5C	1		
5D	1		
5E			Fixed data-2
5F	1	<u> </u>	Fixed data-1
60		<del></del>	Fixed data-2
61		<u> </u>	Fixed data-1
62	1		
63	<u> </u>		Fixed data-2
64	1		(Modified data, copy the data built in
65	-		the same model.)
66			Fixed data-1
	-		(Initialized data)
67	-{		(midanzed data)
68	4		* •
69	-{		
6A		<del></del>	
6B		State Ships	Fixed data-2
6C		sternáření Granitika	
6D	William Comment	ig se salas	on the first territory and the second of the first of the second
6E	1		Fixed data-1
6F			
70	89	89	IRIS & ND HALL adj.
71	} .		Fixed data-1
72			(Initialized data)
73			
74			Fixed data-2
75	]		Fixed data-1
76	1		(Initialized data)
77			
78			
79			
7A			
7B	1		
7C	1		1
7D			
7E	7.		
7F	7		
80	1		
81	1		
82	1		
83	1		
84	1		
85	1		
86	1		
	-		
87	-		
88	1		

Address	Initial	value	Day	
Address	NTSC	PAL	ner Her	nark
89			Fixed data-1	
8A			(Initialized data)	
8B				
8C				
8D				
8E				
8F	1			
90	1			
91				
92				
93				
94				
95	1			•
96				
97	ļ			
98	j .			
99	1			
9A		Tarana ing t Manada ing t	Fixed data-2	
9B	·		Fixed data-1	
9C			(Initialized data)	
9D	1			
9E	1			
9F	1			
A0	1			
A1	1			
A2				
A3	}			
A4	1			
A5	]			
A6		131. 1	Fixed data-2	
A7			Fixed data-1	
A8			(Initialized data)	•
A9				
AA	1			
AB				
AC	1			
AD	j			
AE				
AF				
B0	Ì			
B1				
B2				
В3				
B4				
B5				
В6				
B7				
B8				
B9				
BA				
ВВ				
BC				
BD	'			
BE				•
BF				
C0				·

Address	Initial value	Remark
	NTSC PAL	
C1		Fixed data-1
C2		(Initialized data)
C3		
C4		
C5		
C6		Fixed data-2
C7		(Modified data, copy the data built in
C8		the same model.)
C9		
CA		Fixed data-1
СВ		
CC	and the first set that is the fit	Fixed data-2
CD		(Modified data, copy the data built in
CE		the same model.)
CF		iki kulor enga perdira kalangan kulor salah salah dibirah kalangan berakan kelangan berakan berakan berakan be Pada pada kelangan berakan ber
D0		
D1		
D2	SANTE FARMANA	
D3		Fixed data-1
D4	1	(Initialized data)
D5	1	
D6	1	
D7	1	
D8	1	
D9	1	
DA	†	
DB	1.	
DC	†	
DD	†	
DE	-	
DF	1	
E0	_	,
E1	1	
E2	1	
E3	-	
	_	
E4	4	
E5	1 .	
E6	1	
E7	1	
E8	1	
E9	4	
EA	4	
EB	4	
EC	1	
ED		
EE	_	
EF	1	
F0	<u> </u>	
F1	]	
F2		
F3		
F4		
F5	_	
F6	_	
F7	]	
F8		

Address	Initial value		Daireada
	NTSC PAL Remai		Remark
<b>F</b> 9			Fixed data-2
FA			Fixed data-1
FB			
FC			Fixed data-2
FD			Fixed data-1
FE			
FF			

Table. 5-1-1

4. E Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the F, E
Page Data")

Fixed data-2: Modified data. (Refer to "2. Modification of F, E

	Initial	value	Remark
Address	NTSC		Hemark
00		ta i Salay iid	Fixed data-2
01			Fixed data-1
02			(Initialized data)
03			
04			
05	1		
06			
07	1		
08	1		
09	in faith-sais s	Japan,	Fixed data-2
0A	<u> </u>	20 <u>41 (472)</u>	Fixed data-1
OB	15/10/2019		Fixed data-2
0C	Control of the Contro	# 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Fixed data-1
0D	-		(Initialized data)
	-		(maanzea aaa)
0E	4		
0F	-		
10		- 3 4 33 4	Fixed data-2
11	1 2 2 2 2 2 2 2	t de a contrata	Fixed data-1
12			
13	4		(Initialized data)
14	_		
15	1		na Barra Barra (1981) and a same and the same
16	1.44		Fixed data-2
17		Particular Section 1981	
18			Fixed data-1
19			(Initialized data)
1A	7		
1B			
1C	7		
1D			
1E	<b>-</b>		
1F			
20	=	•	
21	-		
22	-		
23			
24	-		
25	-		
26	-		
	-		
27			
28	-		
29	10	40	Pre white balance data input
2A	40	40	File white balance data input
2B	40	40	Fined data 1
2C		1 00	Fixed data-1
2D	80	80	OFFSET adj.
2E	80	80	_
2F	80	80	
30			Fixed data-1
31			(Initialized data)
32			
33			

	Initial v	/alue	Domosta
Address	NTSC	PAL	Remark
34			Fixed data-1
35	-		(Initialized data)
36			
37			
38			
39			
3A			
3B			
3C	-		
3D			
3E	1		
ļ	-		
3F	1		
40	-		
41			
42			
43	4		
44	1		
45			
46	1		
47			
48	80	80	PSD sensor gain adj.
49	80	80	
4A	_		Fixed data-1
4B	1		(Initialized data)
4C			
4D	e di ji saa gaariyiy Yaqaa ayaa sa		Fixed data-2
4E			Fixed data-1
4F			(Initialized data)
50			
51			
52	Elis Sudi		Fixed data-2
53	Table 1880		
54			
55	7		
56			Fixed data-1
57	Para in		Fixed data-2
58			
59			
5A			
5B	Take Vision		
5C	<u> </u>	<u>, 24 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - </u>	Fixed data-1
5D	1 1 1 4 N S	41.44	Fixed data-2
5E			Fixed data-1
5F	-		(Initialized data)
60	-		,
61	-		
62	D5	D5	Color reproduction adj. (2)
63	EC	EC	(ND filter ON)
64	20	20	
65	20	20	<del>-</del>
66	20	20	Fixed data-1
	-		I Mod data I
67	-		
68			Fired data 2
69	1		Fixed data-2
6A			Fixed data-1
6B			(Initialized data)

Address	Initial value	Demont.
Address	NTSC PAL	Remark
6C	•	Fixed data-1
6D		(Initialized data)
6E		
6F		
70		
71		
72		
73		
74		
75		
76		
77	·	
78		
79		
7A		
7B		
7C		
7D		
7E		
7F		
80		
81	get waterspring	Fixed data-2
83		Fixeu data-2
84	La la casa de destablica	Fixed data-1
85		(Initialized data)
86		(maanzed data)
87		
88		
89		
8A		Fixed data-2
8B		Fixed data-1
8C		Fixed data-2
8D		
8E		Fixed data-1
8F		(Initialized data)
90		
91		
92		j
93		
94		
95		
96		·
97		ļ
98		
99		
9A		ł
9B		
9C to FF		

Table. 5-1-2

### 1-3. CAMERA SYSTEM ADJUSTMENTS

Before perform the camera system adjustments, check that the specified value of "Composite Output Y Level Adjustment" and "Composite Output Chroma Level Adjustment" of "Base Band Block Adjustment" of "VIDEO SYSTEM ADJUSTMENT" are satisfied.

### 1. 27 MHz Origin Oscillation Adjustment (VC-208 Board)

Set the frequency of the clock for synchronization.

If deviated, the synchronization will be disrupted and the color will become inconsistent.

/O C C C C C C C C C C C C C C C C C C C		
Subject	Not required	
Measurement Point	Pin ① of IC204 or Pin ② of IC207 or Pin ⑦ of IC300	
Measuring Instrument	Frequency counter	
Adjustment Page	F	
Adjustment Address	1C	
Specified Value	f=13500000 ± 68 Hz	

### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: F, address: 1C, change the data and set the clock frequency (f) to the specified value.
- 3) Press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

### 2. IRIS & ND HALL Auto Adjustment

For detecting the position of the lens iris and ND filter, adjust the hall AMP gain and offset.

hall AMP gain and onset.		
Subject	Not required	
Measurement Point	DDS display data of LCD or TV	
Measuring Instrument	monitor (Note 5)	
Adjustment Page	F	
Adjustment Address	1E, 1F, 48, 49, 4C, 70	
Specified Value	IRIS display data:  88 to 8A during IRIS OPEN (Note 1)  14 to 18 during IRIS CLOSE (Note 2)  ND display data:  14 to 18 during ND filter OFF (Note 3)  88 to 8A during ND filter ON (Note 4)	

Note 1: Select page: 6, address: 01, set data: 01, and press the PAUSE button of the adjustment remote commander.

Note 2: Select page: 6, address: 01, set data: 03, and press the PAUSE button of the adjustment remote commander.

Note 3: Select page: 6, address: 1C, and set data: 02. Note 4: Select page: 6, address: 1C, and set data: 03.

Note 5: DDS display data of LCD or TV monitor.

CA 00 0000
CA 00 YY XX
L IRIS display data
ND display data

### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 94, and set data: 89.
- 3) Select page: 6, address: 95, and set data: 16.
- 4) Select page: 6, address: 01, set data: 6D, and press the PAUSE button of the adjustment remote commander. (The HALL adjustment is performed and the adjustment data is stored in page: F, address: 1E, 1F, 48, 49, 4C and 70.)
- 5) Select page: 6, address: 02, and check that the data is "01".

### **Processing after Completing Adjustments**

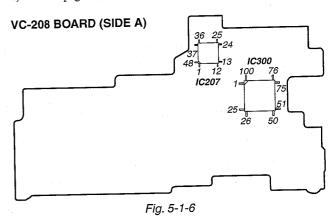
- 1) Select page: 6, address: 94, and set data: 00.
- 2) Select page: 6, address: 95, and set data: 00.
- 3) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

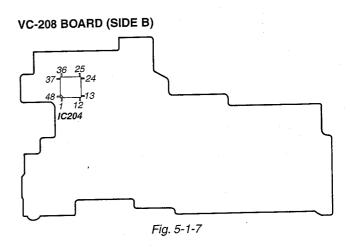
#### Checking method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: D, address: 11, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 04, and set data: 03.
- Select page: 6, address: 01, set data: 01, and press the PAUSE button
- 5) Check the IRIS display data lies within the "88" to "8A" range.
- 6) Select page: 6, address: 01, set data: 03, and press the PAUSE button.
- 7) Check the IRIS display data lies within the "14" to "18" range.
- 8) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 9) Select page: 6, address: 1C, and set data: 02.
- 10) Check the ND display data lies within the "14" to "18" range.
- 11) Select page: 6, address: 1C, and set data: 03.
- 12) Check the ND display data lies within the "88" to "8A" range.

### **Processing after Completing Check**

- 1) Select page: D, address: 11, and set data: 00, and press the PAUSE button.
- 2) Select page: 0, address: 01, and set data: 00.
- Select page: 6, address: 01, and set data: 00, and press the PAUSE button.
- 4) Select page: 6, address: 1C, and set data: 00.





#### 3. Offset Adjustment

Adjust so that the AGC OUT potential lies within the specified value of the digital clamp.

Oz 2215 41-9-1111 1-1111	
Subject	Not required
Measurement Point	DDS display data of LCD or TV
Measuring Instrument	monitor (Note)
Adjustment Page	Е
Adjustment Address	2D, 2E, 2F
Specified Value	50 to B0

Note: DDS display data of LCD or TV monitor.

CA 00 0000 CA 00 00<u>XX</u>

----Object data

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: D, address: 11, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: 6, address: 01, set data: 07 and press the PAUSE button.
- 4) Select page: 6, address: 04, and set data: 1F.
- 5) Check the DDS display data (Rch OPB) satisfies the specified value. If not perform the Rch offset adjustment.
- 6) Select page: 6, address: 04, and set data: 20.
- Check the DDS display data (Gch OPB) satisfies the specified value. If not perform the Gch offset adjustment.
- 8) Select page: 6, address: 04, and set data: 21.
- 9) Check the DDS display data (Bch OPB) satisfies the specified value. If not perform the Bch offset adjustment.
- Select page: 6, address: 01, and set data: 05 and press the PAUSE button.
- 11) Select page: 6, address: 04, and set data: 1F.
- Check the DDS display data (Rch OPB) satisfies the specified value. If not perform the Rch offset adjustment.
- 13) Select page: 6, address: 04, and set data: 20.
- 14) Check the DDS display data (Gch OPB) satisfies the specified value. If not perform the Gch offset adjustment.
- 15) Select page: 6, address: 04, and set data: 21.
- 16) Check the DDS display data (Bch OPB) satisfies the specified value. If not perform the Gch offset adjustment.

#### · Rch offset adjustment

- Select page: E, address: 0C, set data: 02, and press the PAUSE button.
- 2) Select page: E, address: 2D, change the data and adjust the DDS display data to the specified value.

#### · Gch offset adjustment

- Select page: E, address: 0C, set data: 02, and press the PAUSE button.
- Select page: E, address: 2E, change the data and adjust the DDS display data to the specified value.

### Bch offset adjustment

- 1) Select page: E, address: 0C, set data: 02, and press the PAUSE button
- Select page: E, address: 2F, change the data and adjust the DDS display data to the specified value.

- Select page: D, address: 11, set data: 00, and press the PAUSE button.
- Select page: E, address: 0C, set data: 00, and press the PAUSE button.
- 3) Select page: 0, address: 01, and set data: 00.
- 4) Select page: 6, address: 01, and set data: 00, and press the PAUSE button.
- 5) Select page: 6, address: 04, and set data: 00.

#### 4. Flange Back Adjustment

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

#### 4-1. Flange Back Adjustment (1)

Subject	Flange back adjustment chart (2.0 m from the front of the lens) (Luminance: 230 ± 30 lux)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument	Check operation on 1 v monitor	
Adjustment Page	F	
Adjustment Address	24 to 29, 36 to 3D	

# Adjusting method:

- Check that at both the zoom lens TELE end and WIDE end, the center of the chart for the flange back adjustment and center of the exposure screen coincide.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Check that the data of page: F, address: 24 to 29, 36 to 3D is

	Da	ta	Address	Da	ıta
Address	NTSC	PAL	Address	NTSC	PAL
24	8E	2C	. 37	E6	E6
25	1A	17	38	15	23
26	80	78	39	45	00
27	24	1D	3A	3F	19
28	65	FB	3B	3F	00
29	11	12	3C	16	27
36	D6	D6	3D	A8	A8

the initial value (See table below).

- 4) Select page: 6, address: 02, and check that the data is "00".
- 5) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
- 6) Select page: 6, address: 01, set data: 15, and press the PAUSE button of the adjustment remote commander.

  ( The adjustment data will be automatically input to page: F, addresses: 24 to 29, 36 to 3D.)
- 7) Select page: 6, address: 02, and check that the data is "01".

### **Processing after Completing Adjustments**

- Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Perform "Flange Adjustment (2)".

# 4-2. Flange Back Adjustment (2)

Perform this adjustment after performing "Flange Back Adjustment

Subject	Subject more than 500 m away (Subjects with clear contrast such as buildings, etc.)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument	Check operation on 1 v monitor	
Adjustment Page	F	
Adjustment Address	24 to 29, 36 to 3D	

#### Adjusting method:

- Set the zoom lens to the TELE end and expose a subject that is more than 500 m away (subject with clear contrast such as building, etc.). (Nearby subjects less than 500 m away should not be in the screen.)
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 6, address: 02, and check that the data is "00".
- 4) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
- Place a ND filter on the lens so that the optimum image is obtain.
- 6) Select page: 6, address: 01, set data: 29, and press the PAUSE button of the adjustment remote commander.

  (The adjustment data will be automatically input to page: F, addresses: 24 to 29, 36 to 3D.)
- 7) Select page: 6, address: 02, and check that the data is "01".

- 1) Select page: 0, address: 01, and set data: 00.
- 2) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 3) Perform "Flange Back Check".

#### 5. Flange Back Check

Subject	Siemens star (2.0 m from the front of the lens) (Luminance: 300 ± 50 lux)	
Measurement Point	Check operation on TV monitor	
Measuring Instrument		
Specified Value	Focused at the TELE end and WIDE end.	

#### Switch setting:

1) DIGITAL ZOOM (Menu display) ......OFF

#### Checking method:

- 1) Place the Siemens star 2.0 m from the front of the lens.
- 3) Shoot the Siemens star with the zoom TELE end.
- 4) Turn on the auto focus.
- 5) Check that the lens is focused (Note).
- 6) Turn off the auto focus.
- While observe the TV monitor, change the zoom to the WIDE end and check that the lens is focused.

**Note:** When the auto focus is ON, the lens can be checked if it is focused or not by observing the data on the page 1 of the adjustment remote commander.

- 1) Select page: 6, address: 04, and set data: 0F.
- 2) Page 1 shows the state of the focus.

1:00: XX Odd: Focused Even: Unfocused

# **Processing after Completing Adjustments**

1) Select page: 6, address: 04, and set data: 00.

#### 6. Picture Frame Setting

Subject	Color bar chart standard picture frame (95 cm from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope and TV monitor
Specified Value	A=B, C=D, t= $0 \pm 0.1$ msec

#### **Setting method:**

- Adjust the zoom and the camera direction, and set to the specified position.
- 2) Mark the position of the picture frame on the monitor display, and adjust the picture frame to this position in following adjustments using "Color bar chart standard picture frame".

#### Check on the oscilloscope

#### 1. Horizontal period

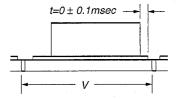
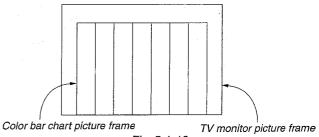


Fig. 5-1-8

#### 2. Vertical period

Fig. 5-1-9

#### Color on the TV monitor



#### 7. Pre White Balance Data Input

At 3200 k, input the pre white balance standard data.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	E
Adjustment Address	2A, 2B

#### Switch setting:

1) ND filter ......OFF

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 1C, and set data: 02.
- Select page: F, address: 20, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: F, address: 21, set data: 28, and press the PAUSE button.
- 5) Select page: F, address: 22, set data: 00, and press the PAUSE button.
- 6) Select page: F, address: 23, set data: 50, and press the PAUSE button.
- 7) Select page: 6, address: 01, set data: 7F, and press the PAUSE button.
- 8) Select page: 6, address: 01, and set data: 7D, press the PAUSE button.
  - (When the standard data is take in, the data will be automatically input to page: E, address: 2A and 2B.)
- 9) Select page: 6, address: 02, and check that the data is "01".

### **Processing after Completing Adjustments**

- Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, and set data: 00.
- 3) Select page: 0, address: 01, and set data: 00.
- 4) Perform "Auto White Balance Standard Data Input".

## 8. Auto White Balance Standard Data Input

At 3200 K, input the white balance standard data.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	20 to 23

Note 1: Perform "Pre White Balance Data Input" before this adjustment. Note 2: Check that the data of page: 6, address: 02 is 00. If not, turn the power of the unit OFF/ON.

## Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 01, and set data: 11, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, and set data: 0B, and press the PAUSE button.
  - (When the standard data is take in, the data will be automatically input to page: F, address: 20 to 23.)
- 4) Select page: 6, address: 02, and check that the data is "01".

### **Processing after Completing Adjustments**

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

#### 9. MAX GAIN Adjustment

Setting the minimum illumination.

If it is not consistent, the image level required for taking subjects in low illuminance will not be produced (dark).

Subject	Clear chart (Color bar standard picture frame) (95 cm from the front of the lens)
Adjustment Page	F
Adjustment Address	2C

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 96, and set data: 00.
- Select page: 6, address: 97, and set data: 2C (NTSC) or data: 21 (PAL).
- 4) Select page: 6, address: 01, set data: 6F and press the PAUSE button of the adjustment remote commander. (When the adjustment data is take in, the data will be automatically input to page: F, address: 2C.)
- 5) Select page: 6, address: 02, and check that the data is changed to "01".

#### **Processing after Completing Adjustments**

- 1) Select page: 6, address: 96, and set data: 00.
- 2) Select page: 6, address: 97, and set data: 00.
- 3) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

### 10. LV Standard Data Input

Adjust the normal coefficient of the light value.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	3E, 3F

### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 01, and set data: 0D, and press the PAUSE button of the adjustment remote commander. (When the adjustment data is take in, the data will be automatically input to page: F, address: 3E and 3F.)

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

### 11. White Balance ND Filter Compensation Adjustment

Compensate the white balance deviation when ND filter is ON.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	4A, 4B

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 6, address: 1C, and set data: 03.
- 3) Wait for 2 seconds.
- 4) Select page: 6, address: 01, and set data: 11, and press the PAUSE button of the adjustment remote commander.
- 5) Select page: 6, address: 01, and set data: 09, and press the PAUSE button.
  - (When the adjustment data is take in, the data will be automatically input to page: F, address: 4A and 4B.)
- 6) Select page: 6, address: 02, and check that the data is changed to "01".

# **Processing after Completing Adjustments**

- Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, and set data: 00.
- 3) Select page: 0, address: 01, and set data: 00.

#### 12. Auto White Balance Adjustment

Adjust to the proper auto white balance output data.

If it is not correct, auto white balance and color reproducibility will be poor.

Subject	Clear chart (Color bar standard picture frame)
Filter	Filter C14 for color temperature correction
Adjustment Page	F
Adjustment Address	34, 35

#### Adjusting method:

- Place the C14 filter for color temperature correction on the lens.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 6, address: 01, set data: 83, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 6, address: 01, set data: 81, and press the PAUSE button.
  - (When the adjustment data is take in, the data will be automatically input to page: F, address: 34 and 35.)
- 5) Select page: 6, address: 02, and check that the data is changed to "01".

### **Processing after Completing Adjustments**

- 1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.

# 13. Color Reproduction Adjustment (ND Filter OFF)

When the ND filter is off, adjust the color difference matrix coefficient so that proper color reproduction is produced.

Subject	Color bar chart standard picture frame
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Adjustment Page	F
Adjustment Address	44, 45, 46, 47
Specified Value	All color luminance points should settle within each color reproduction frame.

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: F, address: 5E, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 01, set data: 61, and press the PAUSE button of the adjustment remote commander.
- 4) Adjust the GAIN and PHASE of the vectorscope, and adjust the burst luminance point to the burst position of the color reproduction frame.
- 5) Change the data of page: F, address: 44, 45, 46 and 47, and settle each color luminance point in each color reproduction frame.

Note: Be sure to press the PAUSE button of the adjustment remote commander before changing the addresses. If not, the new data will not be written to the memory.

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: F, address: 5E, set data: 25, and press the PAUSE button.
- 3) Select page: 0, address: 01, and set data: 00.

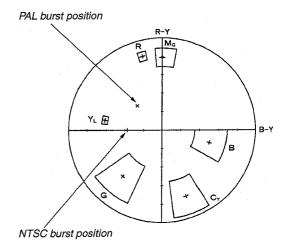


Fig. 5-1-11

# 14. Color Reproduction Adjustment (ND Filter ON)

When the ND filter is on, adjust the color difference matrix coefficient so that proper color reproduction is produced.

Subject	Color bar chart standard picture frame
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Adjustment Page	E
Adjustment Address	62, 63, 64, 65
Specified Value	All color luminance points should settle within each color reproduction frame.

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: F, address: 5E, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 6, address: 1C, set data: 03.
- 4) Wait for 2 seconds.
- 5) Select page: 6, address: 01, set data: 85, and press the PAUSE button of the adjustment remote commander.
- 6) Adjust the GAIN and PHASE of the vectorscope, and adjust the burst luminance point to the burst position of the color reproduction frame.
- Change the data of page: E, address: 62, 63, 64 and 65, and settle each color luminance point in each color reproduction frame.

**Note:** Be sure to press the PAUSE button of the adjustment remote commander before changing the addresses. If not, the new data will not be written to the memory.

# **Processing after Completing Adjustments**

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 6, address: 1C, set data: 00.
- 3) Select page: F, address: 5E, set data: 25, and press the PAUSE button
- 4) Select page: 0, address: 01, and set data: 00.

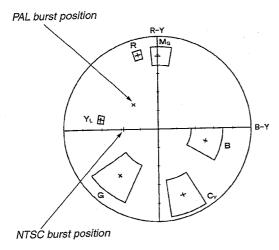


Fig. 5-1-12

## 15. White Balance Check

Subject	Clear chart (Color bar standard picture frame)
Filter	Filter C14 for color temperature correction  ND filter 1.0 and 0.3
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Specified Value	Fig. 5-1-13 (A) to (C)

#### Checking method:

- 1) Check that the lens is not covered with either filter.
- 2) Select page: 6, address: 01, set data: 0F, and press the PAUSE button of the adjustment remote commander.
- 3) Check that the center of the white luminance point is within the circle shown Fig. 5-1-13 (A).
- 4) Select page: 6, address: 01, set data: 23, and press the PAUSE button of the adjustment remote commander.
- 5) Place the C14 filter on the lens.
- 6) Check that the center of the white luminance point settles in the circle shown Fig. 5-1-13 (B).
- 7) Remove the C14 filter, and place the ND filter 1.3 (1.0 + 0.3) on the lens.
- Check that the white luminance point stopped moving, and then remove the ND filter 1.3.
- 9) Check that the center of the white luminance point settles within the circle shown Fig. 5-1-13 (C).

# **Processing after Completing Adjustments**

1) Select page: 6, address: 01, and set data: 00, and press the PAUSE button of the adjustment remote commander.

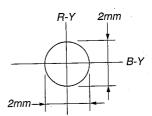


Fig. 5-1-13 (A)

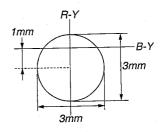


Fig. 5-1-13 (B)

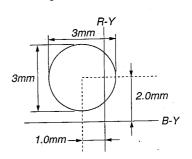


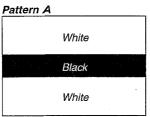
Fig. 5-1-13 (C)

#### 16. PSD Sensor Gain Adjustment

Adjust the gain of the PSD sensor for steady shot operation.

#### 16-1. PSD Sensor Gain Adjustment (1)

Subject	Pattern A (1.5 m from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope (V period)
Adjustment Page	Е
Adjustment Address	48



A4 size (297mm × 210mm) Fig.5-1-14

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: E, address: 48, set data: 80, and press the PAUSE button of the adjustment remote commander.
- Select page: 6, address: 01, set data: 8F, and press the PAUSE button of the adjustment remote commander.
- 4) Expose pattern A with the zoom TELE end.
- 5) Adjust the focus.
- Measure the vertical position SV1 (msec) of the falling edge of the waveform. (Oscilloscope is V period)
- 7) Select page: 6, address: 01, set data: 91, and press the PAUSE button
- 8) Measure the vertical position SV2 (msec) of the falling edge of the waveform. (Oscilloscope is V period)
- Obtain D<sub>48</sub>' using the following equation (decimal calculation).
   NTSC model

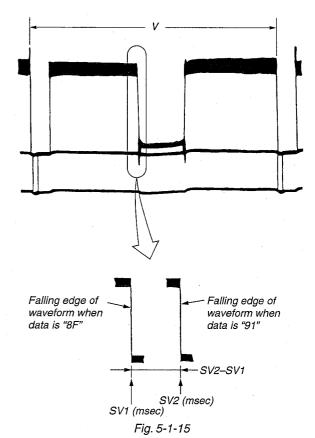
$$D_{48}' = 128 \times (2.88/(SV2-SV1))$$

PAL model

 $D_{48}' = 128 \times (3.40/(SV2-SV1))$ 

- Convert D<sub>48</sub>' to hexadecimal notation, and obtain D<sub>48</sub>. (Round off to one decimal place)
   (Refer to Table 5-4-1. "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Select page: E, address: 48, set data: D48, and press the PAUSE button of the adjustment remote commander.

- Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.
- 3) Check that the steady shot operation is performed normally.



# 16-2. PSD Sensor Gain Adjustment (2)

Subject	Pattern B (1.5 m from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope (H period)
Adjustment Page	Е
Adjustment Address	49

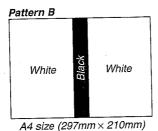
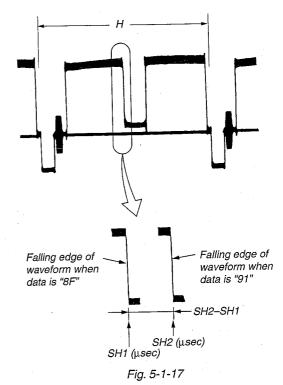


Fig.5-1-16

# Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: E, address: 49, set data: 80, and press the PAUSE button of the adjustment remote commander.
- Select page: 6, address: 01, set data: 8F, and press the PAUSE button of the adjustment remote commander.
- 4) Expose pattern B with the zoom TELE end.
- 5) Adjust the focus.
- Measure the horizontal position SH1 (μ sec) of the falling edge of the waveform. (Oscilloscope is H period)
- 7) Select page: 6, address: 01, set data: 91, and press the PAUSE button
- 8) Measure the horizontal position SH2 ( $\mu$  sec) of the falling edge of the waveform. (Oscilloscope is H period)
- 9) Obtain D<sub>49</sub>' using the following equation (decimal calculation). D<sub>49</sub>' = 128 × (7.4/(SH2–SH1))
- Convert D<sub>49</sub>' to hexadecimal notation, and obtain D<sub>49</sub>. (Round off to one decimal place)
   (Refer to Table 5-4-1. "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Select page: E, address: 49, set data: D49, and press the PAUSE button of the adjustment remote commander.

- 1) Select page: 6, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 2) Select page: 0, address: 01, and set data: 00.
- 3) Check that the steady shot operation is performed normally.



# 17. Angular Velocity Sensor Sensitivity Adjustment

 This adjustment is performed only when replacing the angular velocity sensor.

Although this adjustment need not be performed when the circuit is damaged, etc., check the operations.

Note down the sensitivity displayed on the angular velocity sensor
of the repair parts. At this time, note down also to which board it
was attached to.

Be sure to check because if attached incorrectly, the screen will vibrate up and down or left and right during hand-shake correction operations.

# Precautions on the Parts Replacement

There are two types of repair parts.

Type A ENC03JA
Type B ENC03JB

Replace the broken sensor with a same type sensor. If replace with other type parts, the image will vibrate up and down or left and right during hand-shake correction operations. After replacing, readjust according to the adjusting method after replacement.

#### **Precautions on Angular Velocity Sensor**

The sensor incorporates a precision oscillator. Handle it with care as if it dropped, the balance of the oscillator will be disrupted and operations will not be performed properly.

Adjustment Page	F	
Adjustment Address	41, 42	

**Note:** The sensor sensitivity of SE450 and SE451 of the SE-75 board is written only on the repair parts.

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Read the sensor sensitivity written on SE450 of the SE-75 board, and take this as S450.
- 3) Read the sensor sensitivity written on SE451 of the SE-75 board, and take this as S<sub>451</sub>.
- 4) Calculate D<sub>41</sub>' and D<sub>42</sub>' using the following equation (decimal calculation).

 $D_{41}' = 80 \times (0.60/S_{451})$ 

 $D_{42}' = 80 \times (0.60/S_{450})$ 

- 5) Convert D<sub>41</sub>' and D<sub>42</sub>' into hexadecimal digits, to obtain D<sub>41</sub> and D<sub>42</sub>. (Round off decimal points)
- 6) Select page: F, address: 41, set data: D<sub>41</sub>, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: F, address: 42, set data: D<sub>42</sub>, and press the PAUSE button of the adjustment remote commander.

- 1) Select page: 0, address: 01, and set data: 00.
- Check that the steady shot operations have been performed normally.

# 1-4. COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENT

- Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.
- **Note 2:** When replacing the LCD unit, be careful to prevent damages caused by static electricity.
- Note 3: Set the VF BRIGHT (Menu display) to the center.

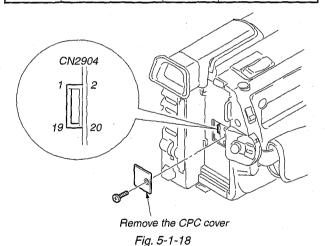
#### [Adjusting connector]

Most of the measuring points for adjusting the viewfinder system are concentrated in CN2904 of the VI-151 board.

Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A)

The following table shows the Pin No. and signal name of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL -	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

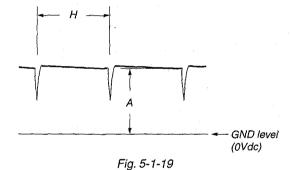


1. VCO Adjustment (VF-121 Board)

Set the VCO free-run frequency. If deviated, the EVF screen will be blurred.

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Pin ⑤ of CN2904 (EVF VCO) on VI-151 board
Measuring Instrument	Oscilloscope (DC range)
Adjustment Page	D
Adjustment Address	75
Specified Value	$A = 1.7 \pm 0.2V$

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Check the GND level of the oscilloscope.
- 3) Select page: D, address: 75, change the data and set the VCO output voltage (A) to the specified value.
- 4) Press the PAUSE button of the adjustment remote commander.
- 5) Select page: 0, address: 01, and set data: 00.



5-21

# 2. Bright Adjustment (VF-121 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin 4 of CN2904 (EVF VG) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	7A
Specified Value	$A = 7.25 \pm 0.05 \text{ V}$

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 7A, change the data and set the voltage

   (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.

   (The data of address: 7A should be "54" to "D7".)
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

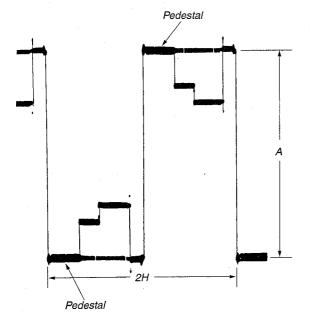


Fig. 5-1-20

#### 3. Contrast Adjustment (VF-121 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ④ of CN2904 (EVF VG) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	7B
Specified Value	$A = 1.81 \pm 0.05 \text{ V}$

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 7B, change the data and set the voltage

   (A) between the 100 IRE and 0 IRE (pedestal) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

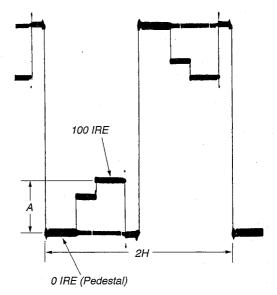


Fig. 5-1-21

# 4. Backlight Consumption Current Adjustment (VF-121 Board)

Set the backlight luminance and color temperature. If deviated, the image may become dark or bright.

II deviated, the ming-	
Mode	Camera
Subject	Arbitrary
Measurement Point	+ Probe: Pin ② of CN2904 (EVF BL +) on VI-151 board - Probe: Pin ③ of CN2904 (EVF BL -) on VI-151 board
Measuring Instrument	Digital voltmeter
Adjustment Page	D
Adjustment Address	76
Specified Value	$A = 17.0 \pm 1.0 \text{ mVdc}$

## Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: D, address: 76, change the data and set the voltage difference (A) between Pin ② of CN2904 (EVF BL +) and Pin ③ of CN2904 (EVF BL -) to the specified value.
- 3) Press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.

# 5. White Balance Adjustment (VF-121 Board)

Correct the white balance.

If deviated, the reproduction of the EVF screen may degenerate.

Mode	Camera	
Subject	Arbitrary	
Measurement Point	Check on EVF screen	
Measuring Instrument	Check on E vi selech	
Adjustment Page	D	
Adjustment Address	71,72	
Specified Value	The EVF screen should not be colored.	

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0B, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 71 and 72, set the data to the initial value.

**Note:** Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	71	72
Data	80	80

5) Check that the EVF screen is not colored. If colored, change the data of page: D, address: 71 and 72 so that the EVF screen is not colored.

Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

#### 1-5. LCD SYSTEM ADJUSTMENT

Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.

Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.

Note 3: Set the LCD BRIGHT to the center.
Set the LCD COLOR (Menu display) to the center.

#### [Adjusting connector]

Most of the measuring points for adjusting the LCD system are concentrated in CN2904 of the VI-151 board.

Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A).

The following table shows the Pin No. and signal name of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL –	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

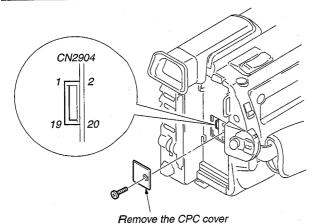


Fig. 5-1-22

#### 1. VCO Adjustment (PD-101 Board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

oo olalioa.	
Mode	VTR stop
Signal	arbitrary
Measurement Point	Pin <sup>(a)</sup> of CN2904 (H START) on VI-151 board
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	84
Specified Value	f = 15734 ± 30 Hz (NTSC) f = 15625 ± 30 Hz (PAL)

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 03, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 84, change the data and set the frequency (f) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

2. D range Adjustment (PD-101 Board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

or saturated (windsir).	
Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑦ of CN2904 (PD VG) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	82
Specified Value	$A = 3.56 \pm 0.05 \text{ V}$

## Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 82, change the data and set the voltage
   (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

# 3. Bright Adjustment (PD-101 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Camera
Arbitrary
Pin ⑦ of CN2904 (PD VG) on VI-151 board
Oscilloscope
D
8A
$A = 1.94 \pm 0.05 \text{ V}$

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 2, address: 0E, and set data: 40.
- 5) Select page: D, address: 8A, change the data and set the voltage (A) between the pedestal and GAMMA1 limiter level to the specified value. (The data of address: 8A should be "1E" to "A0".)
- 6) Press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 0E, and set data: 00.
- 8) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 9) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 0, address: 01, and set data: 00.

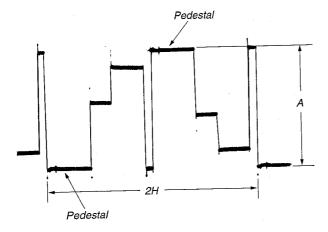


Fig. 5-1-23

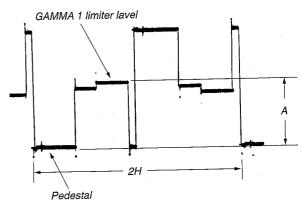


Fig. 5-1-24

#### 4. Contrast Adjustment (PD-101 Board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera	
Subject	Arbitrary	
Measurement Point	Pin ⑦ of CN2904 (PD VG) on VI-151 board	
Measuring Instrument	Oscilloscope	
Adjustment Page	D	
Adjustment Address	8C	
Specified Value	$A = 3.04 \pm 0.05 \text{ V}$	

#### Adjusting method:

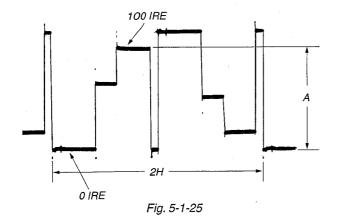
- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 8C, change the data and set the voltage (A) between the 0 IRE (pedestal) and 100 IRE to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

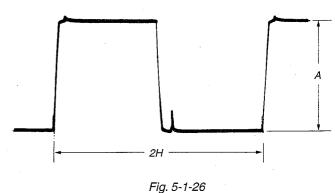
### 5. V-COM Level Adjustment (PD-101 Board)

Set the common electrode drive signal level of LCD to the specified value.

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ① of CN2904 (PANEL COM) on VI-151 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	83
Specified Value	$A = 6.85 \pm 0.05 \text{ V}$

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 02, and press the PAUSE button of the adjustment remote commander.
- Select page: D, address: 83, change the data and set the PANEL COM signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.





6. V-COM Adjustment (PD-101 Board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.

If deviated, the LCD display will move, producing flicker and conspicuous vertical lines.

conspicuous vertical files.		
Camera		
Arbitrary		
Check on LCD display		
Check on Del darpary		
D		
85		
The brightness difference between the section A and section B is minimum.		

**Note:** Perform "Bright Adjustment" and "Contrast Adjustment" before this adjustment.

# Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0F, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 2, address: 0E, and set data: 20.
- 5) Select page: D, address: 85, change the data so that the brightness of the section A and that of the section B is equal.
- 6) Press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 0E, and set data: 00.
- 8) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 9) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 0, address: 01, and set data: 00.

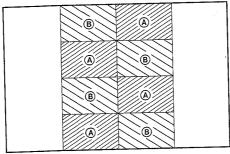


Fig. 5-1-27

# 7. White Balance Adjustment (PD-101 Board)

Correct the white balance.

If deviated, the LCD screen color cannot be reproduced.

Mode	Camera		
Subject	Arbitrary		
Measurement Point	Check on LCD display		
Measuring Instrument	Check on ECD display		
Adjustment Page	D		
Adjustment Address	80, 81		
Specified Value	The LCD screen should not be colored.		

**Note:** Check the white balance only when replacing the following parts. If necessary, adjust them.

- 1. LCD panel
- 2. Light induction plate
- 3. IC5502

#### Adjusting method:

- Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 22, set data: 0B, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: D, address: 80 and 81, set the data to the initial value.

Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	80	81
Data	A0	70

5) Check that the LCD screen is not colored. If colored, change the data of page: D, address: 80 and 81 so that the LCD screen is not colored.

Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

- 6) Select page: 3, address: 22, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

# 5-2. MECHANICAL SECTION ADJUSTMENT

# 2-1. PARTS REPLACEMENT AND PREPARATION FOR ADJUSTMENT

#### About Mode Selector II

#### 2-1-1. Outline

This unit is a mechanism drive tool which supplements the maintenance of each mechanism deck. Its functions are described below.

#### 1. Manual test

A mode which drives the motor only while the switch is ON. It enables the operator to control the motor as desired.

#### 2. Step test

A mode which drives the motor until the current condition detected by the sensor changes to another condition. It enables the movements made by the motor in each operation to be controlled while being checked.

#### 3. Auto test

A mode that checks if the mechanism operates normally according to the condition shift table recorded in the unit for each mechanism deck. All the conditions of the decks are checked through a series of operations.

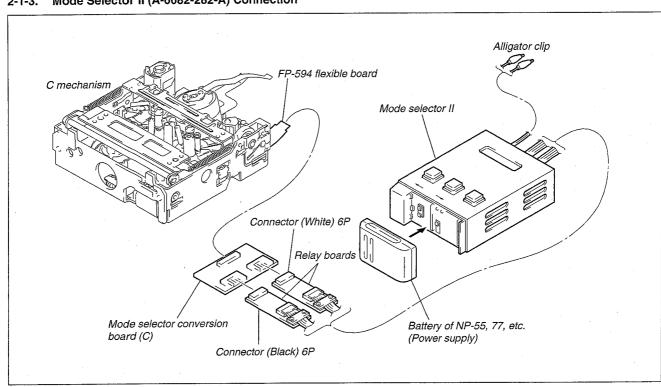
An error message is displayed if incorrect shifts and conditions are detected and operations are stopped.

# 2-1-2. Mechanism Condition (Position) Shifting Order List

After selecting the mechanism deck, select one of the two test modes other than the auto test, and press the RVS and FF button to specify the mechanism state (position).

		MD n	ame		C mechanism	
Code			Cinecilariisiii			
Α	В	С	D			
1	1	1	0	1	EJECT	
1	0	1	0	2	ULE	
1	0	1	1	3	SR	
1	0	0	1	4	HL	
0	1	1	1	5	LE	
0	0	1	1	6	STOP	
1	1	0	1	7	RP	
1	1	0	0	8	REW	

#### 2-1-3. Mode Selector II (A-6082-282-A) Connection



# 2-1-4. The Mechanical Adjustment Requires the Following Tools

- 1) Cleaning fluid (Y-2031-001-0)
- 2) Wiping cloth (7-741-900-53)
- 3) Super fine applicator (Made by NIPPON APPLICATOR (P752D))
- 4) Mirror (Small oval type) (J-6082-840-A)
- 5) Screwdriver for tape path (J-6082-026-A)
- 6) Torque driver (J-9049-330-A)
- 7) TG1 adjustment jig (FWD position adjustment) (J-6082-420-A)
- 8) Mode selector conversion board (C) (J-6082-417-A)
- 9) Tracking tape (XH2-1A1) (NTSC/PAL) (8-967-999-03)
- 10) Mini DV torque cassette (J-6082-360-A)
- 11) Mode selector II (J-6082-282-A)
- 12) Mode selector II ROM (Corresponds to C mechanism) (J-6082-314-D)
- 13) Bending stick (J-6082-419-A)

# 2-2. PARTS REPLACEMENT

#### **Precautions**

For details on removing the cabinet and board, refer to "2. DISASSEMBLY". For details on the replacement of mechanism parts (removal or attaching), refer to the respective flowcharts, and perform the procedure given.

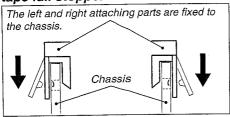
#### 2-2-1. Tape Fall Stopper, HC Roller and HC Arm

Removing method: Spread out the left and right attaching parts

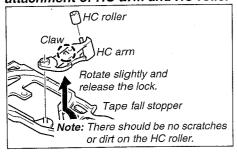
and remove them upwards.

Attaching method: Refer to the Details diagram.

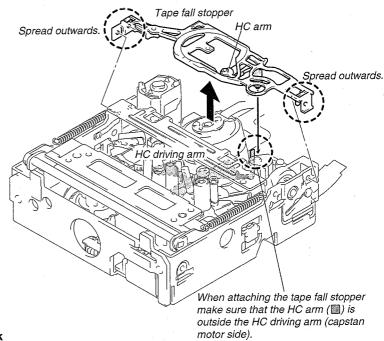
Details diagram on attachment of tape fall stopper



Details diagram on removal and attachment of HC arm and HC roller



2-2-2. Drum Assembly and Drum Base Block Assembly



#### Remove the

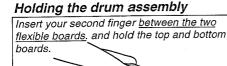
# "2-2-1. Tape Fall Stopper"

Removing method: Remove in the order of ①→②→③→④.

Attaching method: Attach in the order of ④→③→②→①.

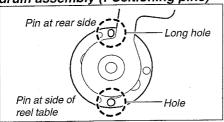
Note: Tighten the screws in the order of ④, ⑤, and ⑥.)

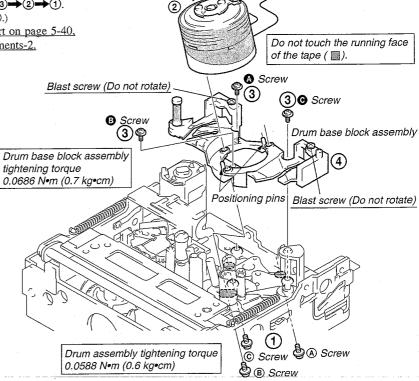
After attaching all the parts, refer to the flowchart on page 5-40, and perform the adjustments from Starting adjustments-2.



Note: Do not touch the running face of the drum assembly.

Details diagram on attachment of drum assembly (Positioning pins)



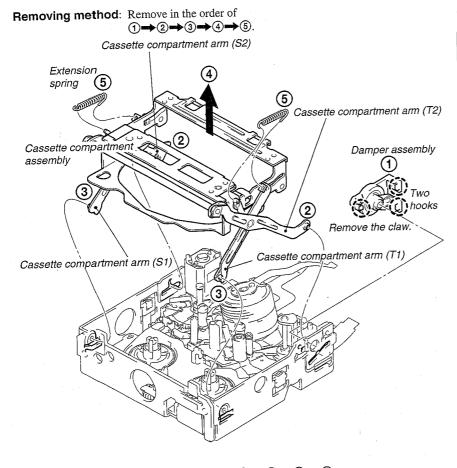


Drum assembly

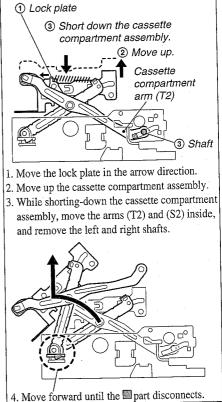
## 2-2-3. Damper Assembly, Cassette Compartment Assembly and Extension Spring

#### Remove the





Details diagram on removal of cassette compartment assembly



Details diagram on attachment of

wo hooks

Shafts

Note: To attach, hook rear hook first.

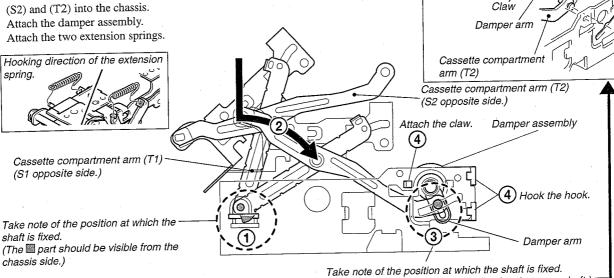
damper assembly

Damper assembly

(The damper arm should also be fixed to the same shaft.)

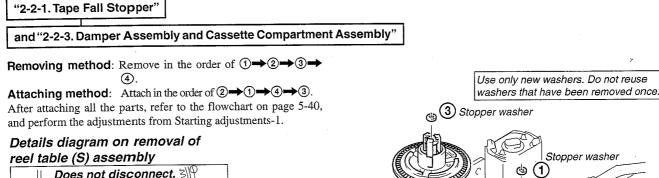
Attaching method: Attach in the order of ①→②→③→④. Note: Be careful not to deform the cassette compartment.

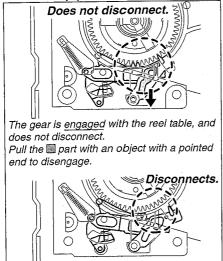
- Insert the left and right shafts of the cassette compartment arms (S1) and (T1) into the chassis.
- Push down the cassette compartment assembly in the direction 2.
- Insert the left and right shafts of the cassette compartment arms (S2) and (T2) into the chassis.

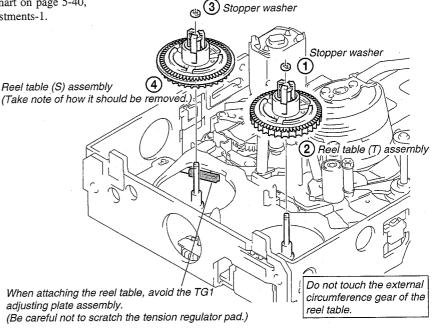


## 2-2-4. Reel Table (S) / Reel Table (T) Assembly

#### Remove the

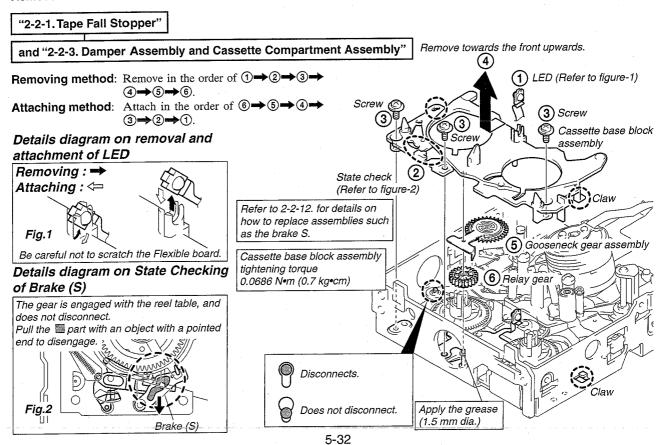




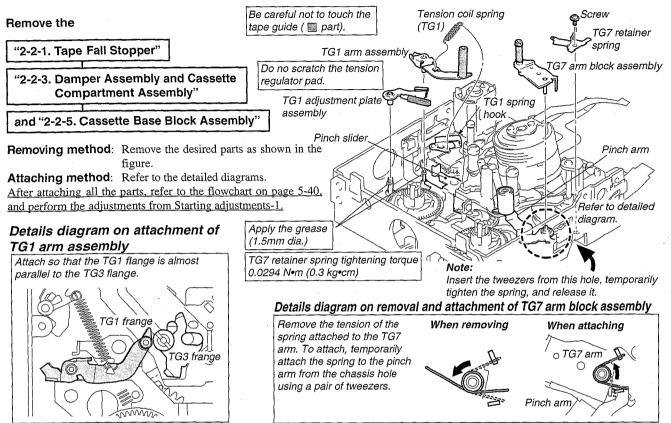


# 2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear

#### Remove the

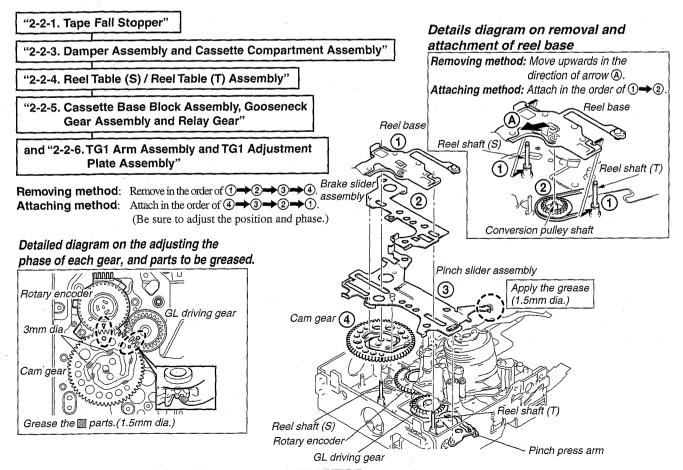


# 2-2-6. TG1 Adjustment Plate Assembly, Tension Coil Spring (TG1), TG1 Arm Assembly, TG7 Retainer Spring and TG7 Arm Block Assembly



## 2-2-7. Brake Slider Assembly, Pinch Slider Assembly and Cam Gear

#### Remove the



Screw tightening torque tolerance. 0.0098 N.m (0.1 kg.cm)

2-2-8. Pinch Arm Assembly, Torsion Spring (TG7LD), Pinch Press Arm and Eject Arm

Pinch arm assembly

Torsion spring

(TG7LD)

Pinch press arm

Eject arm

Remove the

"2-2-1. Tape Fall Stopper"

"2-2-3. Damper Assembly and Cassette Compartment Assembly"

"2-2-4. Reel Table (S) / Reel Table (T) Assembly"

"2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear"

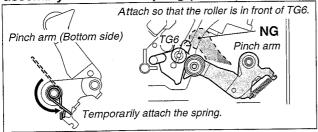
"2-2-6. TG1 Arm Assembly, TG1 Adjustment Plate Assembly and TG7 Arm Block Assembly"

and "2-2-7. Brake Slider Assembly and Pinch Slider Assembly"

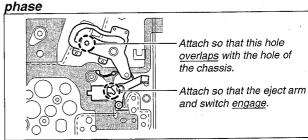
Removing method: Remove in the order of  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4$ . Attaching method: Attach in the order of  $4 \rightarrow 3 \rightarrow 2 \rightarrow 1$ .

(Be sure to adjust the position and phase.)

Details diagram on attachment of pinch arm assembly and torsion spring (TG7LD)



Details diagram on adjustment or position and



# 2-2-9. GL Block Assembly, GL Driving Gear and HC Driving Arm

#### Remove the

"2-2-1. Tape Fall Stopper"

"2-2-3. Damper Assembly and Cassette Compartment Assembly"

"2-2-2. Drum Assembly and Drum Base Block Assembly"

"2-2-4. Reel Table (S) / Reel Table (T) Assembly"

"2-2-5. Cassette Base Block Assembly, Gooseneck Gear Assembly and Relay Gear"

"2-2-6. TG1 Arm Assembly, TG1 Adjustment Plate Assembly and TG7 Arm Block Assembly"

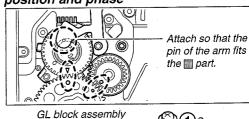
"2-2-7. Brake Slider Assembly, Pinch Slider Assembly and Cam Gear"

and "2-2-8. Pinch Arm Assembly"

(Be sure to adjust the position and phase.)

After attaching all the parts, refer to the flowchart on page 5-40, and perform the adjustments from Starting adjustments-1.

Details diagram on adjustment of position and phase



When attaching the GL block assembly, each coaster must be in contact with the end of the guide rail.

Be careful not to touch the tape guide ( part).

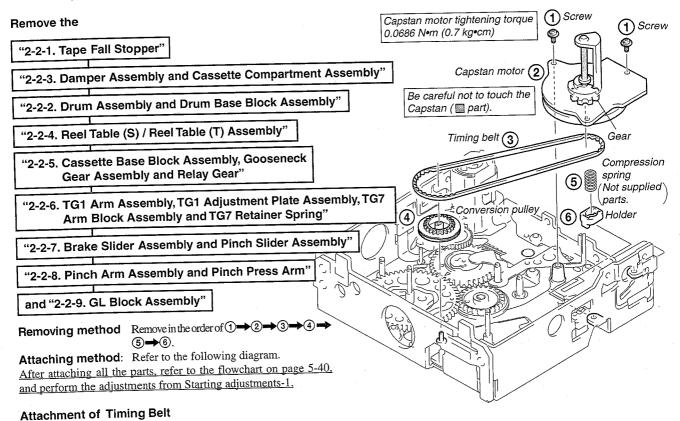


Refer to 3-13. for details on how to replace assemblies such as the guide rail. GL block assembly tightening torque 0.0686 N•m (0.7 kg•cm)

1)Screw

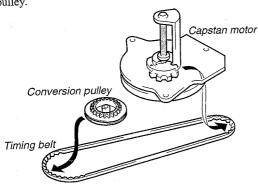
Guide rail

# 2-2-10. Capstan Motor, Conversion Pulley, Timing Belt and Holder



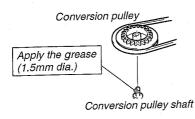
- 1. Refer to "Removing method", and attach the compression
- spring (TG7) and holder to the chassis.Attach the timing belt to the capstan motor and the conversion pulley.

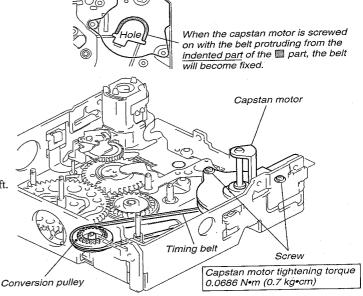
5. After attaching, pull the timing belt lightly, and check that the movements of the conversion pulley and gear at the back of the capstan motor are linked.



3. Attach the conversion pulley to the conversion pulley shaft. Attach the capstan motor to the chassis.

4. Secure the capstan motor with the screw.





Screw tightening torque tolerance. 0.0098 N.m (0.1 kg.cm)

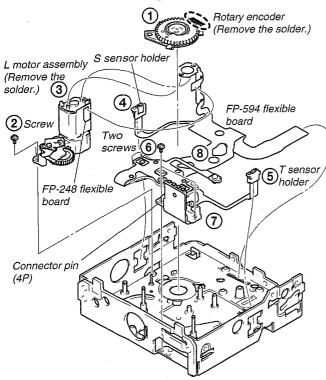
# 2-2-11. L Motor Block Assembly and FP-594 Flexible Board

#### First, remove

### all parts from 2-2-1 to 2-2-10

# Removing method: Remove in the order of $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8$ .

(For details on how to remove each part, refer to the detailed diagram.)



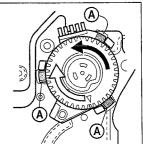
# Detailed diagram on removal and attachment of rotary encoder

#### Removing method:

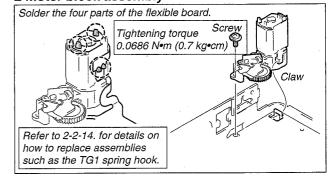
Remove the solder, and rotate the rotary encoder in the direction. (The three parts of part (A) should be visible.)

#### Attaching method:

Rotate the rotary encoder in the in the circuit. (The three parts of part (a) should be hidden.) And then solder.



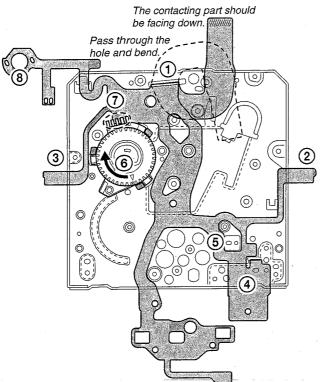
# Detailed diagram on removal and attachment of L motor block assembly



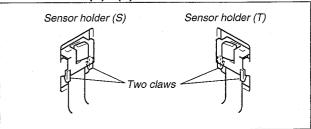
#### Attaching method:

Refer to the following diagram, for attaching the FP-594 flexible board, and attaching the parts in the order of ①→②→③→④→⑤→⑥→⑦→⑥.

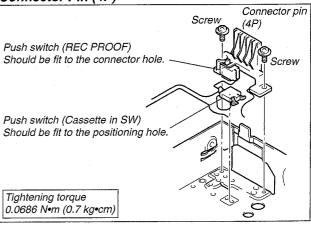
(For attaching each part, refer to each detailed diagram.)



# Detailed diagram on removal and attachment of sensor holder (S) / (T)

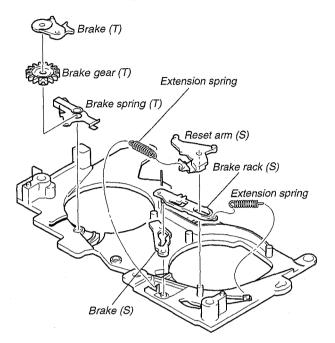


# Detailed diagram on removal and attachment of Connector Pin (4P)

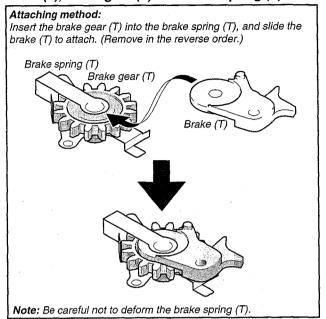


# 2-2-12. Reset Arm (S), Brake (S), Brake Rack (S), Brake (T), Brake Gear (T), Brake Spring (T) and Extension Spring

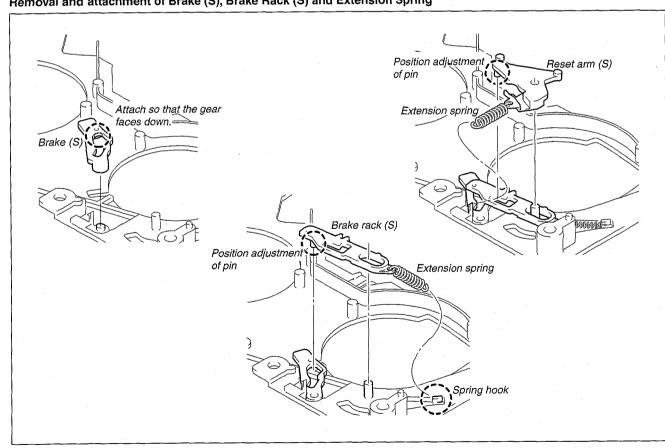
#### Removal or attaching method



# Detailed diagram on removal and attachment of brake (T), brake gear (T) and brake spring (T)



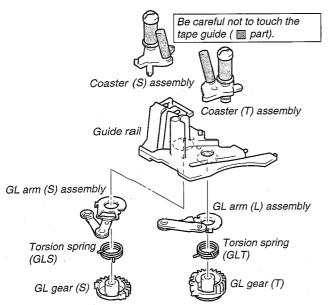
Removal and attachment of Brake (S), Brake Rack (S) and Extension Spring



# 2-2-13. Coaster (S) / (T) Assembly, GL Arm (S) / (T) Assembly, Guide Rail, GL Gear (S) / (T) and Torsion Spring (GLS) / (GLT)

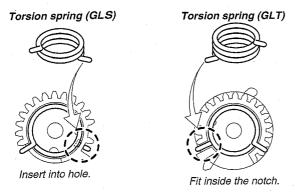
#### Removing method

• Refer to the detailed diagram on the right, and remove each part.

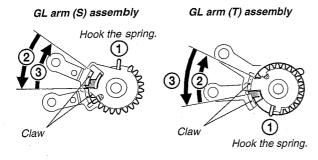


# Assembling the GL Block Assembly

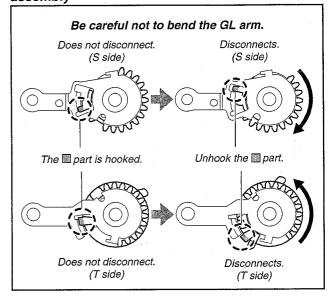
Attach the tension coil spring to each gear.
 To differentiate the S side and T side, the side with more coils is the T side. The S side has less coils. Face the ends of the spring towards you, the tip of the coil (lower side) is positioned at the right for the S side and at the left for the T side.



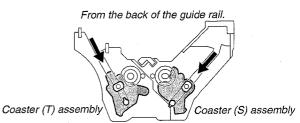
2. Hook the spring to the GL arm, and rotate in the →② direction until the claw of the GL arm passes over the ■ part, and the ■ becomes visible. When the GL arm is completely inserted, the GL arm claw will pass below the ■ part by the tension of the spring (→③).



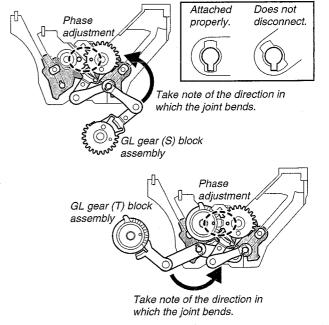
Detailed diagram on removal of GL arm (S) / (T) assembly



3. Attach the respective coaster assemblies.



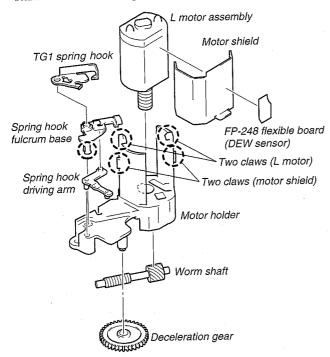
 Attach the GL gear block assembly in the order of the S and T sides.



# 2-2-14. L Motor Assembly, Motor Shield, FP-248 Flexible Board, TG1 Spring Hook, Spring Hook Fulcrum Base, Spring Hook Driving Arm, Worm Shaft, Deceleration Gear and Motor Holder

Removing method

• Refer to the detailed diagram on the right, and remove each part.



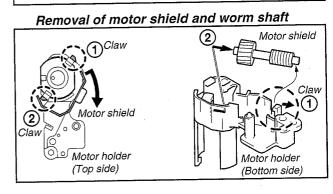
Removal of TG1 spring hook

Rotate to the left slightly opened.

Unhooks.

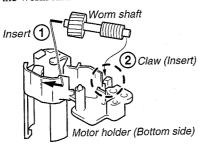
Does not disconnect.

Disconnects here.

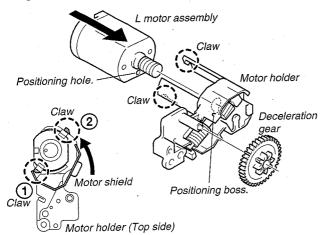


Attaching method

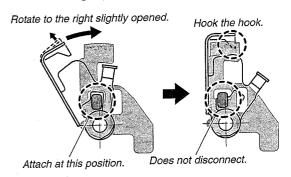
1. Attach the worm shaft.



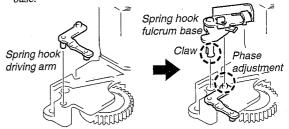
Attach the L motor assembly, motor shield and deceleration gear.

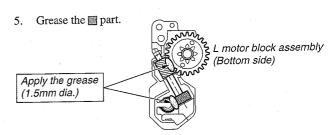


3. Attach the TG1 spring hook to the spring hook fulcrum base.



 Attach the spring hook driving arm and spring hook fulcrum hase.

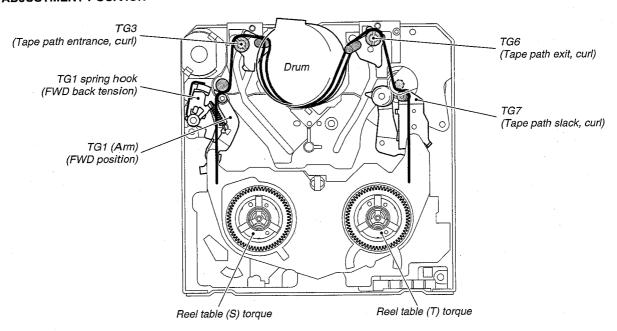




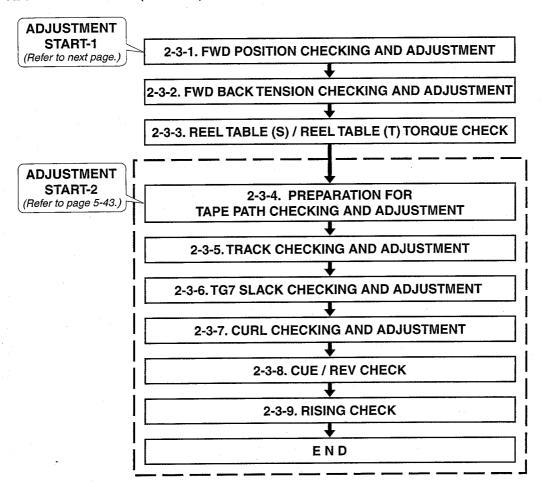
# 2-3. CHECK AND ADJUSTMENT

• When the parts of the tape path (tape guide and reel table, etc.) have been removed or parts have been replaced, adjust the following parts and according to the flowchart below.

#### • ADJUSTMENT POSITION



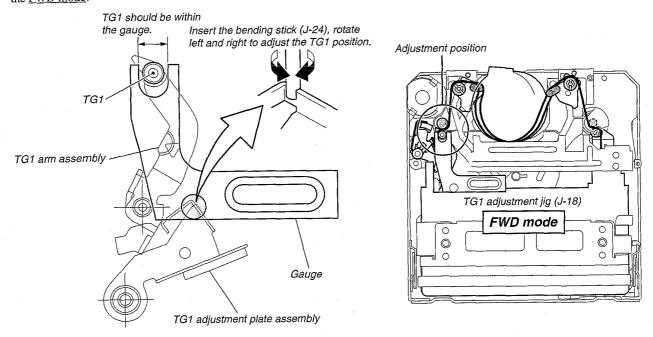
#### • ADJUSTMENT ORDER (Flowchart)



# 2-3-1. FWD Position Checking and Adjustment

#### · Checking / adjusting method

Bend the TG1 adjustment plate with the bending stick (J-24) so that the TG1 flange external circumference, including fluctuation, is within the gauge range while the TG1 adjustment jig (J-18) runs in the FWD mode.



#### 2-3-2. FWD Back Tension Checking and Adjustment

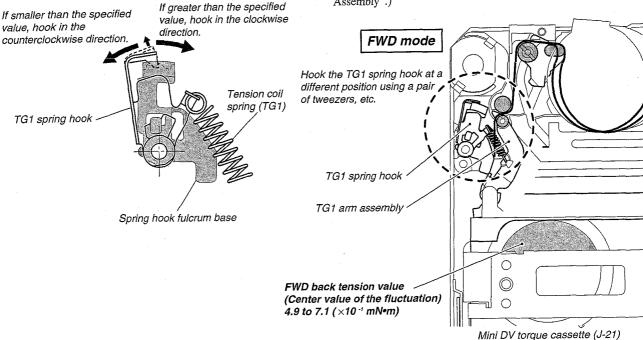
## Checking / adjusting method

Check the gauge value (reel table (S) side) of the mini DV torque cassette (J-21) in the <u>FWD mode</u>. Adjust the position of the TG1 spring hook so that the gauge value satisfies the specified value. If the specified value is not satisfied, hook the TG1 spring hook claw to the middle position, and check that the FWD position is correct. If not correct, adjust the FWD position again, and check the FWD back tension again.

If the FWD position is correct but the specified value for the FWD back tension is not satisfied, replace the tension coil spring (TG1), and perform this adjustment again.

(For details on how to replace, refer to "2-2-6. Tension coil spring (TG1)".)

If the fluctuations of the FWD back tension are great and the specified value is not satisfied, replace the reel table S assembly. (For details on how to replace, refer to "2-2-4. Reel Table (S) Assembly".)



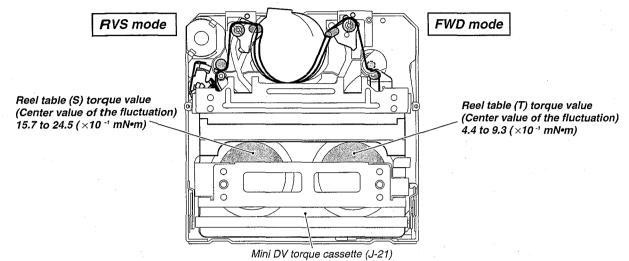
### 2-2-3. Reel Table (S) / Reel Table (T) Torque Check

#### • Checking the Reel table (S) side

Check the gauge value (reel table (S) side) of the mini DV torque cassette (J-21) in the <u>RVS mode</u>.

#### • Checking the Reel table (T) side

Check the gauge value (reel table (T) side) of the mini DV torque cassette (J-21) in the <u>FWD mode</u>.



If the specification is not satisfied, check the 4-1 FWD position, and if no problems, replace the respective reel tables, and check again.
(For details on how to replace, refer to "2-2-4. Reel Table (S) / Reel Table (T) Assemblies".)

#### Preparation for Tape Path Checking and 2-3-4. Adjustment

# Preparations before adjustment 1 (Connection and setting)

1. Clean the tape running side. (Refer to "2-4-2. Cleaning of Tape Path System".)

Connect the adjustment remote commander (J-5) to the LANC jack.



Turn the HOLD switch of the adjustment remote commander to the ON position.

Connect an oscilloscope to VI-151 board CN2904 via the CPC-8 jig (J-6082-388-A).

Channel 1: VI-151 board, CN2904 Pin @ (Note) External trigger: VI-151 board, CN2904 Pin 19

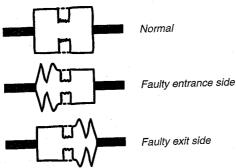
Note: Connect a 75  $\Omega$  resistor between pins @ of CN2904 and 1

75 Ω resistor (Parts code: 1-247-804-11)

CN2904 of VI-151 board

CN2904 of VI-151 board					
Pin No.	Signal Name	Pin No.	Signal Name		
1	LANC SIG	2	EVF BL +		
3	EVF BL -	4	EVF VG		
5	EVF VCO	6	GND		
7	PD VG	8	PD VCO		
9	H START	10	XHD/PSIG		
11	PANEL COM	12	TMS		
13	TCK	14	TDI		
15	TDO	16	GND		
17	SWP	18	RF IN/LANC JACK IN		
19	GND	20	RF MON		
19	OND				

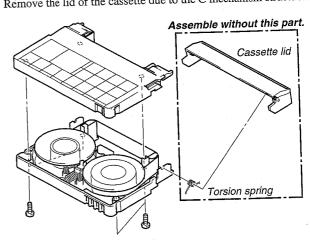
- 5. Playback the alignment tape for tracking (J-20). (XH2-1 exclusive)
- 6. Select page: 3, address: 33, and set data: 08.
- Select page: 3, address: 26, and set data: 31.
- Check the states at the entrance and exit of the RF waveform. If not flat at either side, perform the adjustments from "Flowchart Adjustment start-2" on page 5-40.
- After completing the adjustment, perform "Procedure after checking operations".

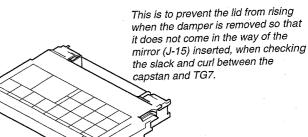


# Procedure after operations

- Connect the adjustment remote commander to the LANC jack and set the HOLD switch to the ON position.
- Select page: 3, address: 26, and set data: 00.
- Select page: 3, address: 33, and set data: 00.
- Disconnect the power of the unit.

 Preparations before adjustment 2 (Preparing an exclusive tracking tape (J-20)) Remove the lid of the cassette due to the C mechanism structure.





Exclusive tracking tape

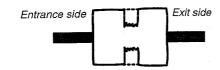
## 2-3-5. Track Checking and Adjustment

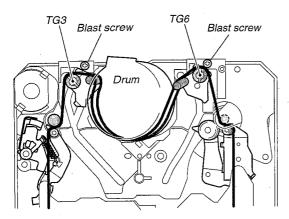
#### · Checking / adjusting method

Run the tracking tape (J-20) in the <u>PLAYBACK mode</u>, and check that the RF waveform is flat at both the entrance and exit.



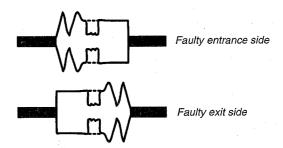
Normal waveform





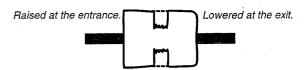
#### • If not flat

If the waveform at the entrance is bad, rotate TG3. If that at the exit is bad, rotate TG6 to flatten the waveform.



#### Tips for adjustment

The tape path waveform at the entrance and exit should both be flat, or that at the <u>entrance should be slightly raised</u> and that at the <u>exit should be lowered</u>. If that at the entrance is slightly lowered especially, problems such as sound drop may occur.



If the waveform does not become flat even if the guides are rotated at the entrance and exit, the characteristics may be faulty of the tracking tape with time. Check again using a new tracking tape. If the waveform still does not become flat, the coaster assembly and drum base block assembly may be faulty.

(For details on how to replace, refer to "2-2-2. Drum Base Block Assembly or 2-2-9. GL Block Assembly".)

#### 2-3-6. TG7 Slack Checking and Adjustment

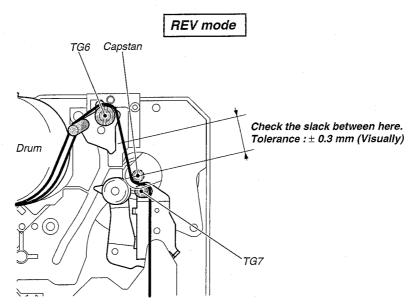
#### · Checking / adjusting method

Run the tracking tape (J-20) in the <u>REV mode</u>, and visually check from right above the slack between the capstan and TG6. If the slack is great, rotate TG7 to satisfy the specified value.

#### • If the slack occurs

If the <u>slack</u> can not be corrected, the TG7 arm block assembly may be faulty.

(For details on how to replace, refer to "2-2-6. TG7 Arm Block Assembly".)



#### 2-3-7. Curl Checking and Adjustment

#### · Checking / adjusting method

Run the tracking tape (J-20) (exclusive) in the <u>CUE mode</u> or <u>REV mode</u>, and check that the tape runs along each flange.

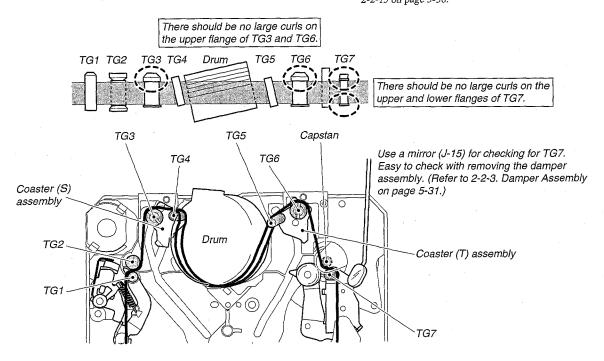
Also check that there are no <u>large curls</u> on each tape guide.

#### • If the curl is large or there are clearances

If the TG3 curl is large or <u>clearances</u> exist, replace the coaster (S) assembly. If the TG6 curl is large, or <u>clearances</u> exist, replace the coaster (T) assembly. If curls or <u>clearances</u> exist on the TG7, rotate TG7 and adjust its height.

Note: Be careful not to rotate TG7 excessively.

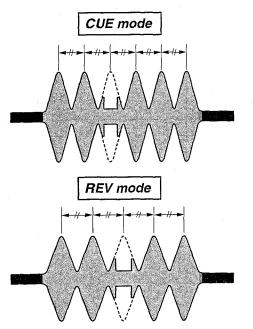
For details on how to replace the coaster (S) / (T) assembly, refer to 2-2-13 on page 5-38.



#### 2-3-8. CUE / REV Check

#### Checking method

Run the tracking tape (J-20) in the <u>CUE mode</u> or <u>REV mode</u>, and check that the intervals of the waveform peaks are consistent.



#### If not even

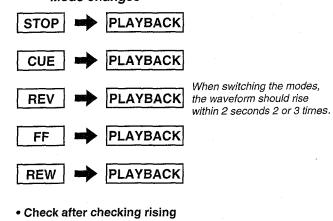
If the waveform peaks are not even, perform "Tracking adjustment" again.

#### 2-3-9. Rising Check

### Checking method

Check that when the tracking tape (J-20) is switched from the <u>STOP</u>. <u>CUE</u>, <u>REV</u>, <u>FF</u>, <u>REW</u> <u>modes</u> to the <u>PLAYBACK</u> <u>mode</u>, the waveform rises horizontally <u>within 2 seconds</u>. Perform this 2 or 3 times.

#### Mode changes



- Check that the tape loads and unloads smoothly.
- Play a self-recorded or already recorded tape, and check that the sound and images are normal.

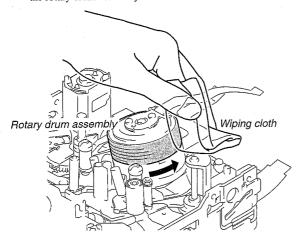
#### 2-4. PERIODIC CHECK

Carry out the following maintenance and periodic checks not only
to fully display the functions and performance of the set, but also
for the equipment and tape. After repairing, service the set as
follows, regardless of the length of use.

# 2-4-1. Cleaning of Rotary Drum Assembly

1. Press a wiping cloth (J-13) moistened with cleaning fluid (J-12) against the rotary drum assembly gently, and clean it while rotating the rotary drum assembly slowly with your finger in the counterclockwise direction.

Note: Do not rotate the motor on power or rotate the rotary drum assembly in the clockwise direction with your finger. The head tip will also be damaged if the wiping cloth is moved perpendicularly against it. Therefore, be sure to follow the above instructions when cleaning the rotary drum assembly.

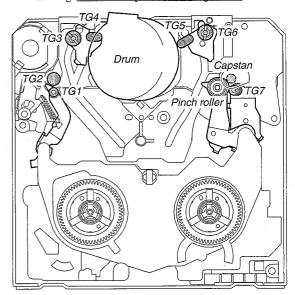


#### 2-4-2. Cleaning of Tape Path System

 Clean the tape path systems (TG1 to TG7 and capstan) and the lower drum using a super fine applicator (J-14) moistened with cleaning fluid.

Note 1: Make sure that no oil or grease of the link mechanisms sticks to the super fine applicator (J-14).

Note 2: Do not use a applicator moistened with alcohol to the other guide cleaning. But clean the pinch roller using alcohol.



#### 2-4-3. Periodic Checks

Location of Maintenance and Check		Hours of Use (H)										Remarks
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	Hemarks
	Cleaning of tape path surface	0	0	0	0	0	0	0	0.	0	0	
	Cleaning and degaussing of rotary drum assembly	0	0	0	0	0	0	0	0	0	0	Be careful of the oil.
Driving system	Timing belt			-								Make sure that no
	Capstan (Bearing)			_						_		oil gets on the tape path surface.
	Loading motor	_		_		_		_				X-3948-346-1
Performance Confirmation	Abnormal noise											
	Back tension measurement			_		_						
	Brake system							_		_		
	FWD/RVS torque measurement							_		_		

Note 1: When overhauling, refer to the checks above and replace parts.

Note 2: Greasing

Always use the specified grease. If the viscosity differs, various problems may occur.

(Use SG-941 for all parts of the C mechanism.)

Check the quantity of grease when installing the parts which is needed to apply the grease.

• FLOIL (SG-941): Part No. 7-662-001-39

O: Cleaning □: Confirmation

# 5-3. VIDEO SECTION ADJUSTMENTS

NTSC model: DSR-PD100 PAL model: DSR-PD100P

# PREPARATIONS BEFORE ADJUSTMENTS

Use the following measuring instruments for video section adjustments.

# 3-1-1. Equipment Required

- 1) TV monitor
- Oscilloscope (dual-phenomenon, band above 30 MHz with delay mode) (Unless specified otherwise, use a 10:1 probe.)
- 3) Frequency counter
- 4) Pattern generator with video output terminal.
- 5) Digital voltmeter
- 6) Audio generator
- 7) Audio level meter
- 8) Audio distortion meter
- Audio attenuator
- 10) Regulated power supply
- 11) Alignment tapes
  - Tracking standard (XH2-1) Parts code: 8-967-997-01
  - SW/OL standard (XH2-3)
  - Parts code: 8-967-997-11
  - Audio operation check for NTSC (XH5-3)
  - Parts code: 8-967-997-51
  - System operation check for NTSC (XH5-5)
  - Parts code: 8-967-997-61 • BIST check for NTSC (XH5-6)
  - Parts code: 8-967-997-71
  - Audio operation check for PAL (XH5-3P)
  - Parts code: 8-967-997-55
  - System operation check for PAL (XH5-5P)
    - Parts code: 8-967-997-66
  - BIST check for PAL (XH5-6P)
  - Parts code: 8-967-997-76
- 12) Adjustment remote commander (J-6082-053-B)
- 13) CPC-8 jig (J-6082-388-A)
- 14) Extension cable (60P, 0.5 mm)
  - For extension between the VC-208 board (CN761) and the CK-80 board (CN7208) (J-6082-431-A)
- 15) Extension cable (100P, 0.5 mm)
  - For extension between the VC-208 board (CN900) and the VI-151 board (CN2901) (J-6082-432-A)
- 16) Extension cable (39P, 0,3 mm)
- For extension between the JK-163 board (CN7102) and the VI-151 board (CN2903) (J-6082-433-A)

# 3-1-2. Precautions on Adjusting

- The adjustments of this unit are performed in the VTR mode or camera mode.
  - To set to the VTR mode, set the power switch to "VTR" (or "PLAYER") or set the "Forced VTR Power ON mode" using the adjustment remote commander (Note 1).
  - To set to the Camera mode, set the power switch to "CAMERA" or set the "Forced Camera Power ON mode" using the adjustment remote commander (Note 2).
  - After completing adjustments, be sure to exit the "Forced VTR Power ON Mode" or "Forced Camera Power ON Mode". (Note 3)
- 2) The front panel block (MA-333 board, microphone unit, focus ring, focus switch) need not be connected except during "Battery End Adjustment", and "Audio adjustments". To remove, disconnect the following connectors.
  - 1. MA-333 board CN7304 (26P, 0.5 mm)
- 3) The viewfinder (VF-121 board, LB-55 board) and upper cabinet (LCD window, ED-48 board) are need not be connected except during "Battery End Adjustment". To remove them, disconnect the following connectors.
  - 1. VI-151 board CN2905 (20P, 0.5 mm)
  - 2. CK-80 board CN7207 (24P, 0.5 mm)
  - 3. CK-80 board CN7203 (5P, 0.5 mm)
- 4) Cabinet (R) (Camera function switch (CK-80 board), LCD block, memory card slot) need not be connected except during "Battery End Adjustment". But removing the cabinet (R) (removing the VI-151 board CN2906) means removing the lithium 3V power supply (BT7200), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on the history use (data of page: 2, address: A2 to AA). (Refer to "SELF-DIAGNOSIS FUNCTION" for the self-diagnosis data, and to "5-4.Service Mode" for the data on the history use.)
  - To remove the cabinet (R) and DC IN jack, disconnect the following connectors.
    - 1. VI-151 board CN2906 (60P, 0.5 mm)
    - 2. VC-208 board CN761 (60P, 0.5 mm)
    - 3. VI-151 board CN3201 (3P, 1.0 mm)
- 5) For extension between the memory card slot(CK-80 board CN7208) and VC-208 board (CN761), use the following extension cable.
  - J-6082-431-A (60P, 0.5 mm)
- 6) The lens block (CD-202 board) need not be connected except during "Battery End Adjustment". To remove, disconnect the following connectors.
  - 1. VC-208 board CN200 (40P, 0.5 mm)
  - 2. VC-208 board CN351 (8P, 0.5 mm)
  - 3. VC-208 board CN500 (26P, 0.5 mm)
- 7) SE-75 board need not be connected except during "Battery End Adjustment". To remove, disconnect the following connectors. VC-208 board CN400 (6P, 0.5 mm)
- When opening the VC-208 board, use the following extension cable between the VC-208 board CN900 and VI-151 board CN2901.
  - J-6082-432-A (100P, 0.5 mm)
- When opening the cabinet (L), use the following extension cable between the JK-163 board CN7102 and VI-151 board CN2903.
   J-6082-433-A (39P, 0.3 mm)

- Note 1: Setting the "Forced VTR Power ON" mode (VTR mode)
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.

    The above procedure will enable the VTR power to be turned on with the power switch block (FK-4880) removed.

    After completing adjustments, be sure to exit the "Forced Power ON mode".
- Note 2: Setting the "Forced Camera Power ON" mode (Camera mode)
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: D, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander.

    The above procedure will enable the camera power to be turned on with the power switch block (FK-4880) removed.

    After completing adjustments, be sure to exit the "Forced Power
- Note 3: Setting the "Forced Memory Power ON" mode (Memory mode)
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: D, address: 10, set data: 05, and press the PAUSE button of the adjustment remote commander.

    The above procedure will enable the memory power to be turned on with the power switch block (FK-4880) removed.

    After completing adjustments, be sure to exit the "Forced Power ON mode".
- Note 4: Exiting the "Forced Power ON" mode
  - 1) Select page: 0, address: 01, and set data: 01.
  - 2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
  - 3) Select page: 0, address: 01, and set data: 00.

# 3-1-3. How to Enter Record Mode Without Cassette

- 1) Connect the adjustment remote commander to the LANC jack.
- 2) Turn the HOLD switch of the adjustment remote commander to the ON position.
- 3) Close the cassette compartment without the cassette.
- Select page: 3, address: 01, set data: 0C, and press the PAUSE button of the adjustment remote commander.
   (The mechanism enters the record mode automatically.)
   Note: The function buttons become inoperable.
- 5) To quit the record mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the record mode, be sure to quit following this procedure.)

#### 3-1-4. How to Enter Playback Mode Without Cassette

- 1) Connect the adjustment remote commander to the LANC jack.
- Turn the HOLD switch of the adjustment remote commander to the ON position.
- 3) Close the cassette compartment without the cassette.

Note: The function buttons become inoperable.

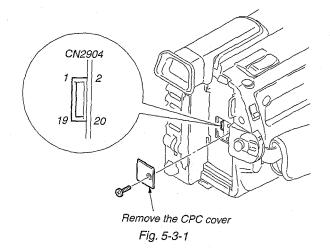
- 4) Select page: 3, address: 01, set data: 0B, and press the PAUSE button of the adjustment remote commander.

  (The mechanism enters the record mode automatically.)
- 5) To quit the playback mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the playback mode, be sure to quit following this procedure.)

# 3-1-5. Adjusting Connectors

Some of the adjusting points of the video section are concentrated at VI-151 board CN2904. Connect the measuring instruments via the CPC-8 jig (J-6082-388-A). The following table lists the pin numbers and signal names of CN2904.

Pin No.	Signal Name	Pin No.	Signal Name
1	LACN SIG	2	EVF BL+
3	EVF BL-	4	EVF VG
5	EVF VCO	6	GND
7	PD VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	TDI
15	TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON



# 3-1-6. Connecting the Equipment

Connect the measuring instruments as shown in Fig. 5-3-2, and perform the adjustments.

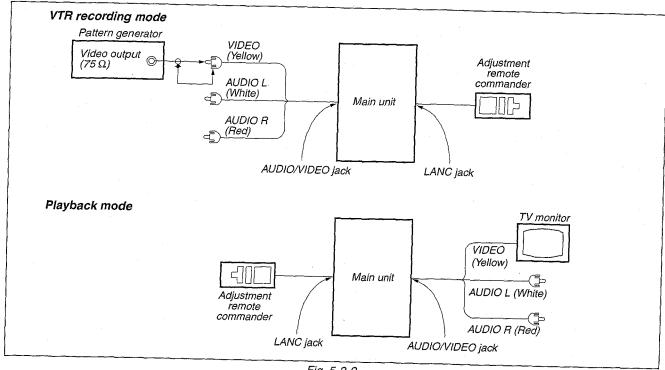


Fig. 5-3-2

# 3-1-7. Checking the Input Signals

Because the video signal obtained from the pattern generator is used as the adjustment signal for adjusting the VTR section, the video output signal must satisfy the given specifications.

Connect the oscilloscope to the video terminal of the AUDIO/ VIDEO jack, and check that the sync signal amplitude of the video signal is approximately <0.286 V> [0.30 V], the amplitude of the video section is approximately <0.714> [0.70 V], the amplitude of the burst signal is approximately <0.286> [0.30 V] and flat, and that the level ratio of the burst signal to the "red" signal is 0.30: 0.60.

The video signal used for adjusting the video section is shown in Fig. 5-3-3.

> NTSC model []: PAL model

# 3-1-8. Alignment Tapes

Use the alignment tapes shown in the following table.
Use tapes specified in the signal column of each adjustment.

Name	Use
Tracking standard (XH2-1)	Tape path adjustment
SW/OL standard (XH2-3)	Switching position adjustment
Audio operation check (XH5-3 (NTSC), XH5-3P (PAL))	Audio system adjustment
System operation check (XH5-5 (NTSC), XH5-5P (PAL))	Operation check
BIST check (XH5-6 (NTSC), XH5-6P (PAL))	BIST check

Fig. 5-3-3 shows the 75% color bar signals recorded on the alignment tape for Audio Operation Check.

**Note:** Measure with video terminal (Terminated at 75  $\Omega$ )

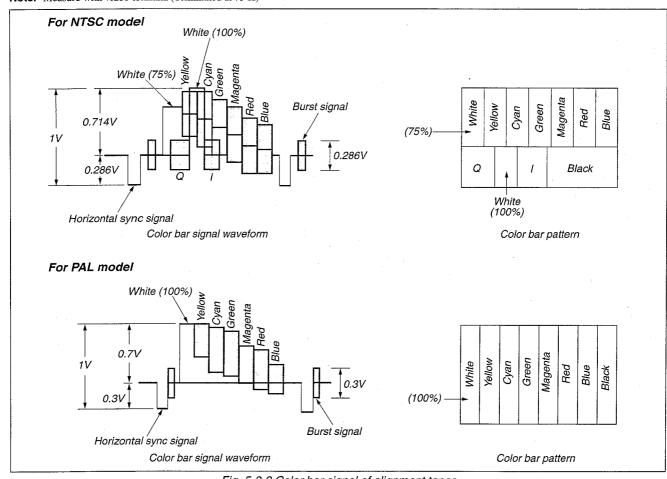


Fig. 5-3-3 Color bar signal of alignment tapes

# 3-1-9. Input/Output Level and Impedance

Video input/output

Special stereo mini jack

Video signal:

1 Vp-p, 75  $\Omega$  unbalanced,

sync negative

S video input/output

4-pin mini DIN

Luminance signal: 1 Vp-p, 75  $\Omega$  unbalanced,

sync negative

Chrominance signal: 0.286 Vp-p, 75  $\Omega$  unbalanced (NTSC)

: 0.300 Vp-p, 75  $\Omega$  unbalanced (PAL)

Audio input/output

Special stereo mini jack

Input level: 327 mV

Input impedance: More than 47 kW

Output level: 327 mV (at load impedance 47 k $\Omega$ )

Output impedance: Below 2.2 k $\Omega$ 

# 3-2. INITIALIZATION OF B, C, D PAGE DATA

1. Initializing the C Page Data

Note: If the page C data is initialized, the following adjustments must be performed again.

- 1) Modification of C page data
- 2) Servo system, RF system adjustments

Adjusting page	C
Adjusting Address	00 to DF

# Initializing Method:

- Select page: 0, address: 01, and set data: 01. 1)
- Select page: 3, address: 80, set data: 0C, and press the PAUSE button of the adjustment remote commander.
- Check that the data of page: 3, address: 80 is changed to "1C".
- 4) Perform "Modification of C Page Data".

# 2. Modification of C Page Data

If the C Page data has been initialized, change the data of the "Fixed data-2" address shown in the following table by manual input.

# Modifying Method:

- 1) Before changing the data, select page: 0, address: 01, and set data: 01.
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camcorder may not operate.

- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

# Processing after Completing Modification of C Page data

- Select page: 2, address: 00, and set data: 29.
- Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- Perform the "Servo System, RF System Adjustments".

# 3. C Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the C Page

Fixed data-2: Modified data. (Refer to "2. Modification of C PAGE Data")

		Data )		
1 due 22	Initial value		Remark	
Address	NTSC	PAL		
00			Fixed data-1	
01			(Initialized data)	
02	1			
03	1			
04				
05				
06				
07 -				
08				
09	_			
0A				
0B				
0C	_			
0D				

	Initia	l val	ue	Remark
ddress	NTSC		\L	
0E				Fixed data-1
0F				(Initialized data)
10	EE			Switching position adj.
11	00		00	
12	EE		E	
13	00		00	
14	_			Fixed data-1
15				G FO Landi
16	E0		Ξ0	Cap FG duty adj.
1.7	E0		E0	T reel FG duty adj.
18	2A		2A	AEQ adj.
19	2A		2A	Fired data 1
1A			22	Fixed data-1 AEQ adj.
1B	33		33	AEQ adj.
1C	33		33	Fixed data-1
1D			25	AGC center level adj.
1E	25		25 3E	PLL fo adj.
1F	31		3E 3E	1 LL 10 auj.
20	3I		DC	APC adj.
21	99	<del></del>	99	LPF fo adj.
22	- 99	7	フフ	Fixed data-1
23	$\dashv$			Thed data 1
24	8	0	88	S VIDEO out Y level adj.
25 26	E		E3	S VIDEO out Cr level adj.
27	$\frac{1}{A}$		A1	S VIDEO out Cb level adj.
28	13	.1		Fixed data-1
29	_			
$\frac{25}{2A}$	-			1
2B		)4	04	Chroma BPF adj.
2C	F LAN	145.54	en e	Fixed data-2
2D	Sa Indian	tuk ujun jukeuju	-	Fixed data-1
2E		Carlo Milano	Section 1991.	Fixed data-2
2F				(Modified data, copy the data built in
30				the same model.)
31				
32				Fixed data-1
33				3941
34				Fixed data-2
35				Fixed data-1
36				
37				11
38		00	00	<del></del>
39		00	00	<del> </del>
3A		00	00	
3B		00	00	
30		00	00	- <del></del>
3E		00	00	<del></del>
3E		00	00	<del></del>
3F		00	00	
40		00	00	
41		00	00	<del> </del>
42		00	00	<del></del>
43		00	00	Fixed data-1
	4			HIXEO ONIA- I

	Initial	value	Domoule
Address	NTSC	PAL	Remark
45			Fixed data-1
46			
47	20	20	PLL fo final adj.
48			Fixed data-1
49			(Initialized data)
4A			
4B			
4C			
4D			
4E			
4F			
50	Sale to Chap		with the second desired the second was a second of the second sec
51			Fixed data-1
52			
53			
54			
55	]		
56	1		
57	1		
58			
59	1		
5A			
5B	1		
5C	İ		
5D			
5E			
5F			
60	35833300	100 000 000 000 000 000 000 000 000 000	Fixed data-2
61			
62	consiste or obtain smalls	<u>, hilipita I padésasi</u>	Fixed data-1
63	-		(Initialized data)
64			,
65	1		
66	1		e de la companya de
67	1		
68	1		
69	1		
6A	1		
6B	1		
6C	1		
6D	-		
6E	1		
6F			Fixed data-2
70	<del>                                     </del>		Fixed data-1
71	1		(Initialized data)
72	2	accention from	Fixed data-2
73	03	03	APC adj.
74	0.5	L 03	Fixed data-1
75	-		(Initialized data)
76	-		(Initialization duta)
77	WE TO T	abtomorph v Are -	Fixed data-2
78	San As a	io (A) States	Fixed data-1
78	-		(Initialized data)
7A	-		(Initialized data)
7B	-		
	-		
7C	1		

Address	Initial value	Rem	nark
7D	NISC FAL	Fixed data-1	
7E		(Initialized data)	
7E		(Initialized data)	
80	ra sumateria de como de la como d La granda de la como d	Fixed data-2	pri in the second secon
81	d white here were a second of the second of	Fixed data-1	o to the contract of the feet
82		(Initialized data)	
		(Illinalized data)	
83			
84			
85			
86	V 1 0 4 0 4 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	· * * · · · · · · · · · · · · · · · · ·
87		Fixed data-2	<b>8</b>
88			i de la companya di salah di s
89	5 1411		9
8A	in the state of th	<u> </u>	<u> </u>
8B		Fixed data-1	
8C		(Initialized data)	
8D		Fixed data-2	
8E	province in the b	er er præðir ei herr mákkir fra þeistræ. <u>Dett herri filmskir ská</u> ldinstaðir sa	i de la composição de la Composição de la composição de la composiç
8F		Fixed data-1	
90		(Initialized data)	
91			
92			
93			
94			
95			
96			
97			
98			
99			
9A			
9B			
9C		-	
9D			
9E			
9F			
A0			
A1			
A2			
A3		Fixed data-2	
A4		Fixed data-1	
A5		(Initialized data)	
A6			
A7			
A8			
A9			
AA	80 80	PLL adj.	
AB	00   00	Fixed data-1	
AC		Tixou udia 1	
AD		Fixed data-2	A service and the service of the ser
AE AE		Fixed data-1	<u>inaraktur, 180ar - ± 1</u>
		1 1xeu data-1	
AF			
B0		<del></del>	
B1		Fixed data-2	
B2			\$1 
В3			
B4			

	Initial	value	Down out
Address	NTSC	PAL	Remark
B5	***		Fixed data-2
В6	1 .	gines. Salines	(S.S., 1)
B7		in the second second	Fixed data-1
B8	rgyrna ( Neus)	-0 (V/50)	Fixed data-2
В9	Candada America	2-0.000	Fixed data-1
BA	1		(Initialized data)
BB	-		
BC	1177	50 1350 No. 1175	Fixed data-2
BD		1999 1997	
BE	1 2 3 4 3	Leading	AND AND ASSESSMENT OF THE PARTY
BF	5 1 - NO		Fixed data-1
C0			(Initialized data)
C1			
C2	_		
C3			
C4			
C5			
C6			
C7			
C8			
C9			
CA			
СВ			
CC			
CD			
CE			
CF			
D0			
D1			
D2			
D3			
D4			
D5			
D6			
D7			
D8			
D9			
DA			
DB			
DC			
DD			
DE			
DF			
E0 to	FF		

Table. 5-3-2

# 4. Initializing the D Page Data

Note: If the D page data is initialized, the following adjustments must be performed again.

- 1) Modification of D page data
- 2) Video system adjustments
- 3) Color electronic viewfinder system adjustments
- 4) LCD system adjustments
- 5) Battery end adjustment

Adjusting page	D
Adjusting Address	10 to 8F

### **Initializing Method:**

- Select page: 0, address: 01, and set data: 01. 1)
- Select page: 3, address: 80, set data: 0D, and press the PAUSE
- Check that the data of page: 3, address: 80 is changed to "1D".
- 4) Perform "Modification of D Page Data".

# 5. Modification of D Page Data

If the D Page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

### **Modifying Method:**

- 1) Before changing the data, select page: 0, address: 01, and set
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.

Note: If copy the data built in the different model, the camcorder may not operate.

- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
- Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

# Processing after Completing Modification of D Page data

- Select page: 2, address: 00, and set data: 29.
- Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
- 3) Perform the following adjustments.
  - Video system adjustments 1)
  - Color electronic viewfinder system adjustments
  - LCD system adjustments 3)
  - 4) Battery end adjustment

# 6. D Page Table

Note: Fixed data-1: Initialized data. ( Refer to "4. Initializing the D Page

Data")

Fixed data-2: Modified data. (Refer to "5. Modification of D PAGE

A .1.1	Initial value		Remark
Address	NTSC	PAL	Heman
00 to 0F			
10	00	00	Test mode
11			Fixed data-1
12			(Initialized data)
13			Fixed data-2
14	ļ		(Modified data, copy the data built in
15			the same model.)
16			Fixed data-1
17	1		(Initialized data)
18	A. 4.		Fixed data-2

	Initial	value	
Address	NTSC		Remark
19	14100		Fived data-2
19 1A	A Company		Fixed data-2 Fixed data-1
1B	A		(Initialized data)
1C	al arm 18 galactic	and the second second	Fixed data-2
1D			Fixed data-1
1E			
1F			
20			Fixed data-2
21			Fixed data-1
22			
23			
24	988-11-Jun 10 Visib	<del>aprii parti parti parti</del> Sentra 1887	Fixed data-2
25	comballa si	al de la la deservición. Como de la la la deservición de la	
26		in a management of the second	Fixed data-1
27		<del>an nedicare</del>	Fixed data-2
28	es se que la com	Saratisa 1	
	A STATE OF AS	A Service Control of the Control of	Fixed data-1
29		Application of the second	Fixed data-1
2A			
2B	1 72 5 2 17 2 14	organist	(Modified data, copy the data built in
2C			the same model.)
2D	AND THE	Ak Child	
2E			Fixed data-1
2F			
30	9D	90	Battery end adj.
31	97	97	
32	A9	· A9	
33	AD	AD	·
34	B5	B5	
35			Fixed data-2
36	arta dellas.	รู้หารท่องที่สาร ราชสาราชาสเตรี	ngi sing on song ing kabupatèn panggapatèn di kabupatèn panggapatèn balanggapatèn. Kabupatèn sa kabupatèn sa Akade sa kabupatèn kabupatèn kabupatèn kabupatèn kabupatèn kabupatèn kabupatèn kabup
Sandoni	10 ALAL		Fixed data-1
37	-		rixed data-1
38	5 FAR ( 50 F0F)		
39			Fixed data-2
3A.		assession as Taxon	And the second of the second o
3B	ind divisions bearing		Reg. A. T. C.
3C			Fixed data-1
3D	The fact of the same	A Company	Fixed data-2
3E			(Modified data, copy the data built in
3F			the same model.)
40	1		
41	1		Fixed data-1
42	SVE W		Fixed data-2
43		<u> Carrier della selecci</u>	Fixed data-1
44	12.12.3	e distriction	T: 4 464 2
45	on military fra	s complete supe	Fixed data-1
46	1		11/20 000 1
	-		
47	-		
48		<del></del>	F. 11.
49	10 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ige og skylige fra sk <del>ag en skylige fra sk</del>	Fixed data=2
4A	ļ		Fixed data-1
4B		ــــــــــــــــــــــــــــــــــــــ	Fixed data-2
4C			Fixed data-1
4D			Fixed data-2
4E			and the second s
4F		1 (A)	and the second of the second o
50			Fixed data-1
	ł		

Address	Initial	value	Remark
Address	NTSC	PAL	nemark
51			Fixed data-1
52			
53	1		
54	1		
55	1		•
56	1		
57	1		
58	1		
59	1		
5A	1		
5B	-		
5C	1		
	-		
5D	-		
5E	-		
5F			
60	1		
61	1		
62	1		
63			
64		eranda berende Gerka da darah	Fixed data-2
65		ry isyan isi 40.245.25	i dan da Victoria de Sacrada e Nova Papa (1941) e 1848 kan 1951 de ili. Boli 19 II. (1954 <u>- 1968 kanda di papa de Cantananda (1961 - 1968 kan 1</u> 964 kan
66			Fixed data-1
67			(Initialized data)
68			
69			
6A		Algorithms (	Fixed data-2
6B			
6C	Section 1		
6D	[04.0/mW.5100000	200 at 1 400 down 2011	Fixed data-1
6E		n <del>a denamen</del> ng 19 aj kg. Al-Matanda	Fixed data-2
6F			
70		See Chert Life	
71	80	80	White balance adj. (EVF)
72	80	80	, ,
73		1 (2000)	Fixed data-2
74	, 14 21 Engage-10.1	pro Augustina - Augustina	Fixed data-1
75	80	80	VCO adj. (EVF)
76	В0	В0	Backlight consumption current adj. (EVF)
77			Fixed data-1
78	en er offisj		Fixed data-2
79	Salah dari dari dari dari dari dari dari dari	iniciale the bear.	Fixed data-1
7A	98	98	Bright adj. (EVF)
7B	80	80	Contrast adj. (EVF)
7C		The second secon	Fixed data-2
7D	1985	292 1	
7E	1. B	<u> </u>	Fixed data-1
7F			
80	A0	A0	White balance adj. (LCD)
81	70	70	ommoo mij. (ECD)
82	C8	C8	D range adj. (LCD)
83	94	94	V-COM level adj. (LCD)
84	90	90	VCO adj. (LCD)
85			
	5A	5A	V-COM adj. (LCD)
86			Fixed data-1
87			
88			

A diduca a a	Initial	value	Remark	
Address	NTSC PAL	nemark	 	
89			Fixed data-1	
8A	58	58	Bright adj. (LCD)	
8B			Fixed data-2	Haran Gayan
- 8C	62	62	Contrast adj. (LCD)	
8D			Fixed data-2	1146
8E			Fixed data-1	
8F	·			 
90 to FF				

Table. 5-3-3

# 7. Initializing the B Page Data

**Note:** If the B page data is initialized, the following adjustments must be performed again.

1) Modification of B page data

Adjusting page	В
Adjusting Address	00 to DF

#### · Initializing Method:

- 1) Set the power switch to the MEMORY position.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
- 4) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.
- Select page: 5, address: 01, set data: F3, and press the PAUSE button.
- 6) Select page: 5, address: 00, set data: 01, and press the PAUSE button
- 7) Select page: 5, address: 02, and check that the data is "00".
- 8) Perform "Modification of B Page Data".

#### 8. Modification of B Page Data

If the B Page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

# Processing before Modification of B Page data

- Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
- 2) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.

### **Modifying Method:**

- Before changing the data, select page: 0, address: 01, and set data: 01.
- New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
  - Note: If copy the data built in the different model, the camcorder may not operate.
- 3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.

### Processing after Completing Modification of B Page data

- 1) Select page: 2, address: 00, and set data: 29.
- 2) Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.

#### 9. B Page Table

Note: Fixed data-1: Initialized data. ( Refer to "7. Initializing the B Page Data")

Fixed data-2: Modified data. (Refer to "8. Modification of B PAGE Data")

	Data'')	
Address		Remark
00	Fixed data-1	
01	(Initialized data)	
02		
03		
04		
05		
06		
07		
08		
09		·
0A		
0B		
0C		
0D		
0E		
0F		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
1A		
1B		
1C		
1D 1E		
1F		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
2A		
2B		
2C	-	
2D		
2E		
2F		
30		
31		
32		
	L	

Address	Remark
33	Fixed data-1
34	(Initialized data)
35	
36	
37	
38	
39	
3A	
3B	
3C	
3D	
3E	
3F	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
4A	
4B	
4C	
4D	
4E	
4F	
50	
51	
52	
53	
54	-
55	
56	1
57	-
58	Fixed data-2
59	Fixed data-1
5A	Tixed data-1
5B	<u>-</u>
5B 5C	Fixed data-2
5D	Fixed data-2 Fixed data-1
5E	Fixed data-1 Fixed data-2
5F	1 IAGG Gata-2
60	Fixed data-1
61	(Initialized data)
62	- (mindiffeet dam)
63	-
64	-
65	-
66	-{
	<b>-</b>   1
67	Fixed data-2
68	Fixed data-2 Fixed data-1
69	

Address	Remark
6B	Fixed data-1
6C	(Initialized data)
6D	Fixed data-2
6E	Fixed data-1
6F	Fixed data-2
70	(Modified data, copy the data built in the same
71	model.)
72	Fixed data-1
73	(Initialized data)
74	
75	
76 . 77	,
78	
79	
7A	
7B	
7C	
7D	
7E	
7F	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
8A	
8B	
8C	
8D 8E	
8F	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
9A	·
9B	
9C	
9D	
9E	
9F	
A0 A1	
A1 A2	
rs.z	

Address	Remark
A3	Fixed data-1
A4	(Initialized data)
A5	
A6	
A7	
A8	
A9	
AA	
AB	
AC	
AD	
AE	
AF	
B0	
B1	
B2	
B3	
B4	
B5	
В6	
В7	
B8	
В9	
BA	
ВВ	
BC	
BD	
BE	
BF	
C0	
C1	•
C2	
C3	
C4	·
C5	
C6	
C7 C8	
C9	
CA	
CB	
CC	
CD	
CE	
CF	
D0	
D1	
D2	
D3	
D3	
D5	
D6	
D7	
D8	
D9	
DA	

Address	Remark
DB	Fixed data-1
DC	(Initialized data)
DD	·
DE	
DF	
E0 to FF	

Table. 5-3-4

#### SYSTEM CONTROL SYSTEM ADJUSTMENT 3-3.

# 1. Battery End Adjustment (VI-151 Board)

Set the battery end voltage.

If the voltage is incorrect, the life of the battery will shorten. The image at the battery end will also lose synchronization.

Mode	Camera recordings
Subject	Arbitrary
Measurement Point	Display data of page: 2, address: 5D
Measuring Instrument	Adjustment remote commander
Adjustment Page	D
Adjustment Address	30 to 34

# Switch setting:

1)	AUTO FOCUSOFF	
2)	LCD display	

#### Connection:

Connect the regulated power supply and the digital voltmeter to the battery terminal as shown in Fig. 5-3-4.

# Adjusting method:

- Adjust the output voltage of the regulated power supply so that the digital voltmeter reading is  $6.1 \pm 0.1$  Vdc.
- Turn off the power supply.
- 3) Turn on the HOLD switch of the adjustment remote commander.
- Turn on the power supply.
- 5) Load a cassette, and set the recording mode.
- 6) Select page: 0, address: 01, and set data: 01.
- Decrease the output voltage of the regulated power supply so that the digital voltmeter reading is  $5.30 \pm 0.01$  Vdc.
- Select page: 2, address: 5D, read the data, and this data is named Dref.
- Set the read-out data (Dref) to page: D. address: 30 and press the PAUSE button.
- 10) Convert Dref to decimal notation, and obtain Dref'. (Refer to Table 5-4-1 "Hexadecimal-decimal Conversion Table" of "5-4. Service Mode".)
- 11) Calculate D<sub>31</sub>', D<sub>32</sub>', D<sub>33</sub>', D<sub>34</sub>' and D<sub>49</sub>' using following equations (decimal calculation), convert it to a hexadecimal number, and input each adjustment address.

Address:  $31 D_{31}' = Dref' + 7$ Address: 32 D<sub>32</sub>' = Dref' + 25

Address: 33 D<sub>33</sub>' = Dref' + 29

Address:  $34 D_{34}' = Dref' + 37$ 

Note: After setting each data, be sure to press the PAUSE button of the adjustment remote commander.

12) Select page: 0, address: 01, and set data: 00.

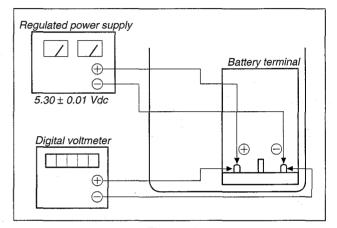


Fig. 5-3-4

# 3-4. SERVO AND RF SYSTEM ADJUSTMENT

Before performing the servo and RF system adjustments, check that the specified value of "27 MHz Master Oscillator Adjustment" of "CAMERA SYSTEM ADJUSTMENT" is satisfied.

# **Adjusting Procedure:**

- 1. Cap FG duty adjustment
- 2. T-reel FG duty adjustment
- 3. PLL fo & LPF fo adjustment
- 4. Switching position adjustment
- 5. AGC center level adjustment
- 6. APC & AEQ adjustment
- PLL fo & LPF fo final adjustment

# 1. Cap FG Duty Adjustment (VI-151 Board)

Set the Cap FG signal duty cycle to 50% to establish an appropriate capstan servo. If deviated, the uneven rotation of capstan and noise can occur.

Call Occur.	
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	16
Specified Value	00

# **Adjusting Method:**

- 1) Close the cassette compartment without inserting a cassette.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 3, address: 01, set data: 1B, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 02, and check that the data changes starting from "1B" to "2B" to "00" in this order.
- 5) Select page: 3, address: 03, and check that the data is "00".

  Note: If the data of page: 3, address: 03 is "02", adjustment has errors or the mechanism deck is defective.
- 6) Select page: 0, address: 01, and set data: 00.

# 2.T Reel FG Duty Adjustment (VI-151 Board)

Adjust the take-up reel FG signal duty cycle to an appropriate value so that the correct T-reel FG signal is obtained.

SO that the correct 1 1001	
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	17
Specified Value	00

# **Adjusting Method:**

- 1) Close the cassette compartment without inserting a cassette.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 3, address: 01, set data: 1C, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 3, address: 02, and check that the data changes starting from "1C" to "2C" to "00" in this order.
- 5) Select page: 3, address: 03, and check that the data is "00". Note: If the data of page: 3, address: 03 is "02", adjustment has errors or the mechanism deck is defective.
- 6) Select page: 0, address: 01, and set data: 00.

# 3. PLL fo & LPF fo Adjustment (VI-151 Board)

Mode	VTR stop
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 47
Specified Value	00

# **Adjusting Method:**

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: 3, address: 02, and check that the data is changed to "00".
- 4) Select page: 3, address: 03, and check that the data is "00".

  Note: If the data of page: 3, address: 03 is other than "00", there are errors. (For the error contents, see the following table. For the bit values, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".
- 5) Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03	Elloi Contenta
bit 4 = 1	PLL fo, even channel is defective
bit $5 = 1$	PLL fo, odd channel is defective
bit 6 = 1	LPF fo is defective
bit 3 = 1	PLL fo final adjustment is defective

# 4. Switching Position Adjustment (VI-151 Board)

Mode	VTR playback
Signal	SW/OL reference tape (XH2-3)
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	10, 11, 12, 13
Specified Value	00

#### Adjusting Method:

- 1) Insert the SW/OL reference tape and enter the VTR STOP mode.
- 2) Select page: 0, address: 01, and set data: 01.
- 3) Select page: 3, address: 21, and check that the data is "02".
  Note: If the data of page: 3, address: 21 is "72", the tape top is being played. After playing the tape for 1 to 2 seconds, perform step 4 and higher.
- 4) Select page: 3, address: 01, set data: 0D, and press the PAUSE button of the adjustment remote commander.
- 5) Select page: 3, address: 02, and check the data is changed to "00".
- 6) Select page: 3, address: 03, and check that the data is "00".

  Note: If bit 0 of page: 3, address: 03 data is "1", the even channel is defective. If bit 1 is "1", the odd channel is defective. Contents of the defect is written into page: C, addresses: 10 and 12. See the following table. (For the bit value, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".)
- 7) Select page: 0, address: 01, and set data: 00.

# When the even channel is defective

Data of page: C, address: 10	Contents of defect
EE	Writing into EEPROM (IC2404) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC1900 (TRX)

# When the odd channel is defective

Data of page: C, address: 12	Contents of defect	
EE	Writing into EEPROM (IC2404) is defective	
E8	Adjustment data is out of range	
E7	No data is returned from IC1900 (TRX)	

# 5. AGC Center Level Adjustment (VI-151 Board)

Mode	Camera record and playback
Subject	Arbitrary
Measurement Point	Pin @ of CN2904 (RF MON) (Note 1)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	1E
Specified Value	The display data of page: 3, address: 03 is "00"

Note 2: Connect a 75  $\Omega$  resistor between Pin 9 and Pin 9 (GND) of CN2904.

75 Ω resistor (Parts code: 1-247-804-11)

#### **Adjusting Method:**

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Record the camera signal for a minute.
- 3) Playback the recorded segment.
- 4) Select page: 3, address: 33, and set data: 08.
- 5) Confirm that the playback RF signal is stable.
- 6) Select page: 3, address: 01, set data: 23, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 3, address: 02, and check that the data is "00".
- 8) Select page: 3, address: 03, and check that the data is "00".

  Note: If data of page: 3, address: 03 is other than "00", adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
- 9) Select page: 3, address: 33, and set data: 00.
- 10) Select page: 0, address: 01, and set data: 00.

Data of page: 3, address: 03	Remedial measures
20	Perform re-adjustment. (Note 2)
30	The machine is defective
40	Perform re-adjustment. (Note 2)
50	The machine is defective

Note 2: If this data is displayed twice successively, the machine is defective.

# 6. APC & AEQ Adjustment (VI-151 Board)

Mode	Camera record and playback
Subject	Arbitrary
Measurement Point	Pin <b>20</b> of CN2904 (RF MON) (Note 1)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	18, 19, 1B, 1C, 21, 73
Specified Value	The display data of page: 3, address: 03 is "00"

Note 1: Connect a 75  $\Omega$  resistor between Pin 20 and Pin 9 (GND) of CN2904.

75 Ω resistor (Parts code: 1-247-804-11)

Note 2: The "5. AGC Center Level Adjustment" must have already been completed before starting this adjustment.

# **Adjusting Method:**

- Select page: 0, address: 01, and set data: 01.
- Record the camera signal for two minutes.
- Playback the recorded segment.
- 4) Select page: 3, address: 33, and set data: 08.
- Check that the playback RF signal is stable. 5)
- 6) Select page: 3, address: 01, set data: 07, and press the PAUSE button of the adjustment remote commander.
- Check that the data of page: 3, address: 02 changes from "07" to "00" in about 50 seconds after pressing the PAUSE button.
- Select page: 3, address: 03, and check that the data is "00". Note: If data of page: 3, address: 03 is other than "00", adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
- 9) Select page: 3, address: 33, and set data: 00.
- 10) Select page: 0, address: 01, and set data: 00.

Data of page: 3, address: 03	Tiemodia: mode
20	Perform re-adjustment. (Note 3)
30	The machine is defective
50	Perform re-adjustment. (Note 3)
60	The machine is defective
80	The machine is defective

Note 3: If this data is displayed twice successively, the machine is defective.

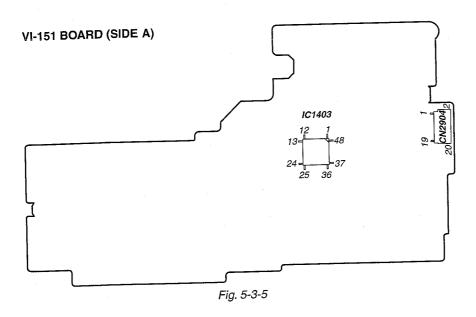
# 7. PLL fo & LPF fo Final Adjustment (VI-151 Board)

Mode	VTR playback
Signal	Arbitrary
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 47
Specified Value	00

# Adjusting Method:

- Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
- Select page: 3, address: 02, and check that the data changes to 3) "00".
- Select page: 3, address: 03, and check that the data is "00". Note: If the data of page: 3, address: 03 is other than "00", there are errors. (For the error contents, see the following table. For the bit values, refer to "5-4. SERVICE MODE", "4-3. 3. Bit value discrimination".
- Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03	Ellor contents
bit 4 = 1	PLL fo, even channel is defective
bit 5 = 1	PLL fo, odd channel is defective
bit 6 = 1	LPF fo is defective
bit $3 = 1$	PLL fo final adjustment is defective



#### 3-5. VIDEO SYSTEM ADJUSTMENTS

Before perform the video system adjustments, check that the specified value of "27 MHz Origin Oscillation Adjustment" of "CAMERA SYSTEM ADJUSTMENT" is satisfied.

### 3-5-1. Base Band Block Adjustments

#### 1. Chroma BPF fo Adjustment (VI-151 Board)

Set the center frequency of IC1402 chroma band-pass filter.

Mode	VTR stop
Signal	No signal
Measurement Point	CH1: Chroma signal terminal of S VIDEO jack (75 $\Omega$ terminated) CH2: Y signal terminal of S VIDEO jack (75 $\Omega$ terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	2B
Specified Value	A = 100  mVp-p or less B = 200  mVp-p or more

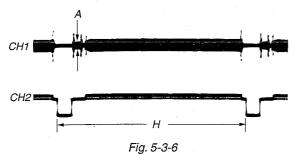
#### Switch setting:

DISPLAY (Menu display)	V-OUT/LCD
DISPLAY (CK-80 board)	ON

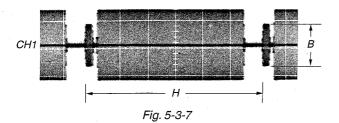
### Adjusting method:

- 1) Check that the burst signal (B) is output to the chroma signal terminal of S VIDEO jack.
- 2) Select page: 0, address: 01, and set data: 01.
- Select page: 3, address: 0C, set data: 04, and press the PAUSE button of the adjustment remote commander.
- Select page: C, address: 2B, and change the data for minimum amplitude of the burst signal level (A).
   (The data of address: 2B, should be "00" to "07".)
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 6) Check that the burst signal level (B) is satisfied the specified value.
- 7) Select page: 0, address: 01, and set data: 00.

### When the data of page: 3, address: 0C, is 04:



# When the data of page: 3, address: 0C, is 00.



### 2. S VIDEO OUT Y Level Adjustment (VI-151 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Y signal terminal of S VIDEO jack (75 $\Omega$ terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	С
Adjustment Address	25
Specified Value	$A = 1000 \pm 14 \text{ mV}$

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: C, address: 25, change the data and set the Y signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- 6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 7) Select page: 2, address: 35. and set the data that is noted down at step 2).
- 8) Select page: 0, address: 01, and set data: 00.

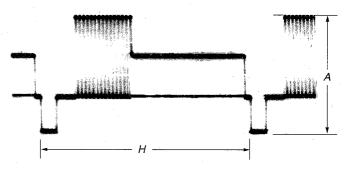


Fig. 5-3-8

3. S VIDEO OUT Chroma Level Adjustment (VI-151 Board)

(VI-151 Board)			
Mode	Camera		
Subject	Arbitrary		
Measurement Point	Chroma signal terminal of S VIDEO jack (75 $\Omega$ terminated) External trigger: Y signal terminal of S VIDEO jack		
Measuring Instrument	Oscilloscope		
Adjustment Page	С		
Adjustment Address	26, 27		
Specified Value	Cr level: $A = 714 \pm 14 \text{ mV (NTSC)}$ $A = 700 \pm 14 \text{ mV (PAL)}$ Cb level: $B = 714 \pm 14 \text{ mV (NTSC)}$ $B = 700 \pm 14 \text{ mV (PAL)}$ Burst level: $C = 286 \pm 6 \text{ mV (NTSC)}$ $C = 300 \pm 6 \text{ mV (PAL)}$		

# Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: C, address: 26, change the data and set the Cr signal level (A) to the specified value.
- 5) Press the PAUSE button of the adjustment remote commander.
- Select page: C, address: 27, change the data and set the Cb signal level (B) to the specified value.
- 7) Press the PAUSE button of the adjustment remote commander.
- 8) Check that the burst signal level (C) is satisfied the specified value.
- 9) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 10) Select page: 2, address: 35. and set the data that is noted down at step 2).
- 11) Select page: 0, address: 01, and set data: 00.

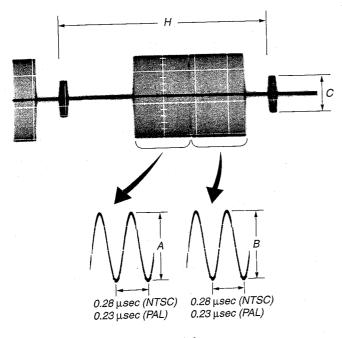


Fig. 5-3-9

# 4. AV OUTY, Chroma Level Check (VI-151 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Video terminal of AUDIO/VIDEO jack (75 $\Omega$ terminated)
Measuring Instrument	Oscilloscope
Specified Value	Sync level: A = 286 ± 18 mV (NTSC) A = 300 ± 18 mV (PAL) Burst level: B = 286 ± 18 mV (NTSC) B = 300 ± 18 mV (PAL)

# Adjusting method:

- 1) Select page: 2, address: 35. After note down the data of this address, set data: 01 to the address.
- 2) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjusting remote commander.
- 3) Check that the sync signal level (A) satisfies the specified value.
- 4) Check that the burst signal level (B) satisfies the specified value.
- 5) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 6) Select page: 2, address: 35. and set the data that is noted down at step 1).

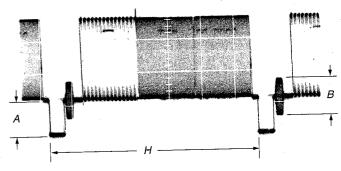


Fig. 5-3-10

# 5. PLL Adjustment (VC-208 Board)

Set the VCO center level of the video input circuit (IC1200).

Mode	VTR stop
Signal	Color bar (Video terminal of AUDIO/ VIDEO jack input)
Measurement Point	Display data of page: 3, address: 04
Measuring Instrument	Adjustment remote commander
Adjustment Page	С
Adjustment Address	AA
Specified Value	08 or 09 (Note 1) 08 or 09 or 0A (Note 2)

Note 1: When the data of page: C, address: AA is "00" to "FE".

Note 2: When the data of page: C, address: AA is "FF".

#### Adjusting method:

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 3, address: 0C, set data: 80, and press the PAUSE button of the adjustment remote commander.
- 3) Select page: C, address: AA, and set data: 00, and press the PAUSE button.
- 4) Select page: 3, address: 04, and check. If the data is "08" or "09", proceed to step 7).
- 5) Select page: C, address: AA, add "10" (hexadecimal) to the data (Note 3) and press the PAUSE button.
- Note 3: If the data of page: C, address: AA is "F0", change the data to "FF" and press the PAUSE button.
- 6) Select page: 3, address: 04, and check the data satisfies the specified value. If not repeat steps 5) to 6).
- Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 8) Select page: 0, address: 01, and set data: 00.

# 3-5-2. BIST Check

# 1. Playback System Check

# 1-1. Preparation for Playback

- Set the POWER switch to VTR (or PLAYER) position.
- Connect the adjusting remote commander and set the HOLD switch to ON (SERVICE) position.
- Playback the BIST check tape. (XH5-6 (NTSC), XH5-6P 3) (PAL))

Note: Perform the following checks in the playback mode.

# 1-2. IC1814 (TRF) BIST (PB) Check

- Select page: 3, address: 12, set data: 04, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE 2) button.
- Select page: 3, address: 13, set data: 02, and press the PAUSE button.
- When the playback system of IC1814 (TRF) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

#### NTSC model

MISCIII	oue:					-
Address			Da	ata		
L	63	C5	75	D3	59	FF
16	84	55	07	D6	01	D0
1 1/ 1	04	1 33	· ·			

# PAL model

Address		Data	
16	86	33	90
17	35	AA	В6

# 1-3. IC1601 (TFD) BIST (PB) Check

- Select page: 3, address: 40, set data: 0F, and press the PAUSE
- Select page: 3, address: 40, set data: 00, and press the PAUSE 2) button.
- When all playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model		
Address	Data	
41	26	
42	A1	

PAL model		
Address	Data	
41	69	
42	73	

- Select page: 3, address: 40, set data: 03, and press the PAUSE 4)
- Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- When the video playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

#### NTSC model Address Data 7C 41 01 42

PAL modei		
Address	Data	
41	A6	
42	E1	

- Select page: 3, address: 40, set data: 05, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE
- When the audio playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

#### NTSC model Address Data 88 41 A9 42

PAL model			
Address Data			
41	43		
42	C8		

- 10) Select page: 3, address: 40, set data: 09, and press the PAUSE button.
- 11) Select page: 3, address: 40, set data: 00, and press the PAUSE
- 12) When the subcode playback system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

	MISC IIIOGEI	
ļ	Address	Data
	41	72
	42	CD

PAL model		
Address	Data	
. 41	76	
42	A9	

# 1-4. IC1600 (SFD) BIST (PB) Check

- Select page: 0, address: 01, and set data: 01.
- Select page: C, address: AC, set data: 21, and press the PAUSE
- Select page: C, address: AD, set data: 01, and press the PAUSE
- Select page: 3, address: 11, set data: 04, and press the PAUSE button.
- Select page: 3, address: 12, set data: 08, and press the PAUSE button.
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 03, and press the PAUSE
- When the playback system from IC1600 (SFD) to IC2002 (ADC&DAC) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model	
Address	Data
14	41
15	81

PAL model		
Data		
2D		
7C		

When the playback system from IC1600 (SFD) to IC1602 (LIP) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model		
Address	Da	ıta
16	1E	FO
17	B4	31

PAL model		
Address	Data	
16	1C	
17	A6	

10) When the playback system from IC1600 (SFD) to IC1601 (TDF) is normal, the display data (combination data) of page: 3, address: 18 and 19 agrees with any combination as shown below.

#### NTSC model

Address	Da	ita
18	72	16
19	F8	5C

PAL	model

•	1712 1110401	
Į	Address	Data
ſ	18	A7
ſ	19	CC

11) When the playback system from IC1600 (SFD) to IC1501 (VFD) is normal, the display data (combination data) of page: 3, address: 1A and 1B agrees with any combination as shown below.

NTSC model

Address	Data
1A	12
1B	43

PAL	mode
-----	------

Address	Data
1A	90
1B	CE

- 12) Select page: C, address: AC, set data: 20, and press the PAUSE
- 13) Select page: C, address: AD, set data: 00, and press the PAUSE button.
- 14) Select page: 0, address: 01, and set data: 00.

#### 1-5. IC1501 (VFD) BIST (PB) Check

- Select page: 0, address: 01, and set data: 01.
- Select page: C, address: 60, set data: 06, and press the PAUSE button.

#### VBUS/EX BIST (PB) Check

- Select page: 3, address: 10, set data: 00, and press the PAUSE button.
- 4) Select page: 3, address: 12, set data: 10, and press the PAUSE
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 04, and press the PAUSE
- When the playback system from IC1600 (SFD) to IC1501 (VFD) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown

NTSC model	
Address	Data
14	12
15	43

PAL model	
Address	Data
14	90
15	CE

When the playback system from IC1501 (VFD) to IC756 (HONEY) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC	n	nodel	
Addres	S	Dat	•

Address	Data
16	FB
17	F4

PAL model		
Ŀ	Address	Data
I	16	54
ſ	17	ED

#### • UPY Y BIST (PB) Check

- Select page: 3, address: 10, set data: 88, and press the PAUSE
- 10) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 11) Select page: 3, address: 12, set data: 00, and press the PAUSE
- 12) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 13) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

NTSC model Address Data 16 9A 17 13

PAL model	
Address	Data
16	03
17	C9

# • UPY Cr BIST (PB) Check

- 14) Select page: 3, address: 10, set data: 89, and press the PAUSE button.
- 15) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 16) Select page: 3, address: 12, set data: 00, and press the PAUSE
- 17) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 18) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

#### NTSC model

MISO model	
Address	Data
16	1C
17	60

PAL	model
-----	-------

Address	Data
16	14
17	A7

#### • UPY Cb BIST (PB) Check

- 19) Select page: 3, address: 10, set data: 8A, and press the PAUSE button.
- 20) Select page: 3, address: 12, set data: 10, and press the PAUSE
- 21) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 22) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 23) When the playback system from IC1501 (VFD) to IC5001, 5502 (LCD DRIVER) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

#### NTSC model

Address	Data
16	92
17	5A

#### PAL model

Address	Data
16	В8
17	67

# • Preparation of ENC BIST (PB) Check

24) Select page: C, address: 51, set data: 0F, and press the PAUSE

#### • ENC Ya BIST (PB) Check

- 25) Select page: 3, address: 10, set data: 8B, and press the PAUSE
- 26) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 27) Select page: 3, address: 12, set data: 00, and press the PAUSE
- 28) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 29) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

#### NTSC model

Address	Data
16	3C
17	D2

DAI madai

PAL model	
Address	Data
16	69
17	21

#### • ENC Yb BIST (PB) Check

- 30) Select page: 3, address: 10, set data: 8C, and press the PAUSE button.
- 31) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 32) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 33) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 34) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

#### NTSC model

MISC INduct	
Address	Data
16	83
17	9E

#### PAL model

Address	Data
16	CC
17	ED

#### ENC Ca BIST (PB) Check

- 35) Select page: 3, address: 10, set data: 8D, and press the PAUSE button.
- 36) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 37) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 38) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 39) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

# NTSC model

Address Data		ıta	
1	6	FE	22
1	7	68	CA

PAL model

	I AL IIIOGOI		
Address Da		ıta	
	16	70	43
	17	D5	E4

### • ENC Cb BIST (PB) Check

- 40) Select page: 3, address: 10, set data: 8E, and press the PAUSE
- 41) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
- 42) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 43) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
- 44) When the playback system from IC1501 (VFD) to IC1402 (AOI) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

# NTSC model

1100 model		
Address	Da	ıta
16	B2	DE
17	E7	EE

PAL model		
Address	Da	ita
16	ED	-9A
17	CB	1E

- 45) Select page: C, address: 51, set data: 03, and press the PAUSE
- 46) Select page: C, address: 60, set data: 0E, and press the PAUSE button.
- 47) Select page: 0, address: 01, and set data: 00.

#### 2. Recording System Check

# 2-1. Preparations for recording

- 1) Playback the BIST check tape. (XH5-6(NTSC), XH5-6P(PAL))
- 2) Select page: 3, address: 10, set data: C0, and press the PAUSE
- Select page: 3, address: 11, set data: 07, and press the PAUSE 3) button.
- Enter the stop mode.
- While keep the HOLD switch of the adjusting remote commander at ON (SERVICE) position, eject the BIST check tape and insert a tape for recording in place of the tape.
- 6) Enter the camera recording mode.

Note: Perform the following checks in the camera recording mode.

# 2-2. IC1501 (VFD) BIST (REC) Check

- Select page: 3, address: 12, set data: 10, and press the PAUSE
- Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- Select page: 3, address: 13, set data: 04, and press the PAUSE
- When the recording system from IC1501 (VFD) to IC1600 (SFD) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

#### NTSC model

Address	Data
14	D5
15	0B

#### PAL model

Addres	s Data
14	34
15	8A

### 2-3. IC1600 (SFD) BIST (REC) Check

- Select page: 0, address: 01, and set data: 01.
- Select page: C, address: AC, set data: 21, and press the PAUSE 2)
- Select page: C, address: AD, set data: 01, and press the PAUSE
- Select page: 3, address: 11, set data: 04, and press the PAUSE button.
- Select page: 3, address: 12, set data: 08, and press the PAUSE
- 6) Select page: 3, address: 12, set data: 00, and press the PAUSE
- Select page: 3, address: 13, set data: 03, and press the PAUSE button.
- When the recording system from IC1600 (SFD) to IC1602 (LIP) is normal, the display data (combination data) of page: 3, address: 16 and 17 agrees with any combination as shown below.

### NTSC model

Address	Dε	ata
16	00	BC
17	15	CE

### PAL model

Address	Data	
16	2D	A2
17	F5	7B

When the recording system from IC1600 (SFD) to IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 18 and 19 agrees with any combination as shown below.

### NTSC model

Address	Da	ata
18	F7	4F
19	F6	69

PAL model

Address	Data	
18	6C	23
19	C7	76

10) When the recording system from IC1501 (VFD) to IC1600 (SFD) is normal, the display data (combination data) of page: 3, address: 1A and 1B agrees with any combination as shown below.

NTSC model

NIOO IIIOGCI	
Address	Data
1A	D5
1B	0B

PAL model		
Address Data		
1A	34	
1B	8A	

- 11) Select page: C, address: AC, set data: 20, and press the PAUSE button.
- 12) Select page: C, address: AD, set data: 00, and press the PAUSE
- 13) Select page: 0, address: 01, and set data: 00.

#### 2-4. IC1601 (TFD) BIST (REC) Check

- Select page: 3, address: 40, set data: 0F, and press the PAUSE button.
- 2) Select page: 3, address: 40, set data: 00, and press the PAUSE
- When all recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

#### NTSC model

11100 model		
Address	Data	
41	C2	A7
42	42	DD

#### PAL model

Address	Data	
41	55	1A
42	В5	04

- Select page: 3, address: 40, set data: 03, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE 5) button.
- When the video recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

N15C model		
Address	Data	
41	BB	
42	4E	

PAL model		
Address	Data	
41	DC	
42	ED	

- Select page: 3, address: 40, set data: 05, and press the PAUSE button.
- Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- When the audio recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NISC model	
Address	Data
41	D7
42	23

PAL model		
Address	Data	
41	E4	
42	38	

- 10) Select page: 3, address: 40, set data: 09, and press the PAUSE button.
- 11) Select page: 3, address: 40, set data: 00, and press the PAUSE
- 12) When the subcode recording system of IC1601 (TFD) is normal, the display data (combination data) of page: 3, address: 41 and 42 agrees with any combination as shown below.

NTSC model

	MIOC IIIOGEI		
Address		Data	
	41	D9	
	42	3C	

PAL model

Address Data		
41	47	
42	27	

- 13) Select page: 3, address: 40, set data: 01, and press the PAUSE button.
- 14) Select page: 3, address: 40, set data: 00, and press the PAUSE button.
- 15) When the recording system from IC1601 (TFD) to IC1900 (TRX) is normal, the display data (combination data) of page: 3, address: 43 and 44 agrees with any combination as shown below.

#### NTSC model

Address			
43	18	C8	
44	F0	FB	

#### PAL model

Address	Data	
43	F6	A2
44	2A	E3

# 2-5. IC1900 (TRX) BIST (REC) Check

- 1) Select page: 3, address: 12, set data: 04, and press the PAUSE button.
- 2) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
- 3) Select page: 3, address: 13, set data: 02, and press the PAUSE button.
- 4) When all recording system of IC1900 (TRX) is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

#### NTSC model

Address	Da	ıta
14	96	BC
15	D1	0E

# PAL model

Address	Da	ita
14	27	B5
15	8D	61

# 3-6. AUDIO SYSTEM ADJUSTMENTS

# [Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-11.

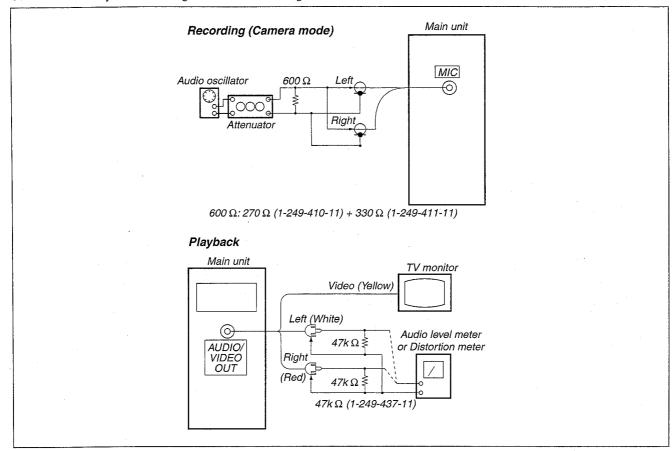


Fig. 5-3-11

### 1. Playback Level Check

Mode	VTR playback
Signal	Alignment tape: For audio operation check (XH5-3 (NTSC)) (XH5-3P (PAL))
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter and frequency counter
Specified Value	32 kHz mode: $1 \text{ kHz}$ , $+3.0 \pm 2.0 \text{ dBs}$ $48 \text{ kHz}$ mode: $1 \text{ kHz}$ , $+3.0 \pm 2.0 \text{ dBs}$ 44.1  kHz mode: The $7.35 \text{ kHz}$ signal level during EMP OFF is $+2.0 \pm 2.0 \text{ dBs}$ . The $7.35 \text{ kHz}$ signal level during EMP ON is $-6 \pm 2 \text{ dB}$ from the signal level during EMP OFF.

# **Checking Method:**

1) Check that the playback signal level is the specified value.

# 2. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -66 dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 3.0 \text{ dBs}$

# **Checking Method:**

- 1) Input the 400 Hz, -66 dBs signal in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the 400 Hz signal level is the specified value.

# 3. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -66 dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.4 % (200 Hz to 6 kHz BPF ON)

# **Checking Method:**

- 1) Input the 400 Hz, -66 dBs signal in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the distortion is the specified value.

### 4. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the MIC jack
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below –45 dBs (IHF-A filter ON, 20 kHz LPF ON)

# **Checking Method:**

- 1) Insert a shorting plug in the MIC jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the noise level is the specified value.

#### 5. Overall Separation Check

Mode	Camera recording and playback
Signal	400 Hz, -66 dBs signal: MIC jack <right> [left] (Connect the MIC jack <left> [right] to GND)</left></right>
Measurement Point	Audio <left> [right] terminal of AUDIO VIDEO jack</left>
Measuring Instrument	Audio level meter
Specified Value	Below -40 dBs (IHF-A filter ON)

<>: Left channel check

[ ]: Right channel check

# **Checking Method:**

- 1) Input the 400 Hz, -66 dBs signal in the <right> [left] terminal of the MIC jack only.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the signal level of the audio <left> [right] terminal is the specified value.

# 5-4. SERVICE MODE

# 4-1. ADJUSTMENT REMOTE COMMANDER

The adjustment remote commander is used for changing the calculation coefficient in signal processing, EVR data, etc. The adjustment remote commander performs bi-directional communication with the unit using the remote commander signal line (LANC). The resultant data of this bi-directional communication is written in the non-volatile memory.

#### 1. Using the Adjustment Remote Commander

- Connect the adjustment remote commander to the LANC terminal.
- Set the HOLD switch of the adjustment remote commander to "HOLD" (SERVICE position). If it has been properly connected, the LCD on the adjustment remote commander will display as shown in Fig. 5-4-1.



Fig. 5-4-1

- 3) Operate the adjustment remote commander as follows.
  - Changing the page
    The page increases when the EDIT SEARCH+ button is
    pressed, and decreases when the EDIT SEARCH- button is
    pressed. There are altogether 16 pages, from 0 to F.

Hexadecimal notation	0	1	2	3	4	5	6	7	8	9	A	В	С	D	Е	F
LCD Display	0	1	2	3	4	5	5	7	В	9	Я	Ь	ے	d	Ε	F
Decimal notation conversion value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

# · Changing the address

The address increases when the FF ( $\blacktriangleright \blacktriangleright$ ) button is pressed, and decreases when the REW ( $\blacktriangleleft \blacktriangleleft$ ) button is pressed. There are altogether 256 addresses, from 00 to FF.

- Changing the data (Data setting)
   The data increases when the PLAY (►) button is pressed, and decreases when the STOP (■) button is pressed. There are altogether 256 data, from 00 to FF.
- Writing the adjustment data
   The PAUSE button must be pressed to write the adjustment data (B, C, D, F page) in the nonvolatile memory. (The new adjusting data will not be recorded in the nonvolatile memory if this step is not performed.)
- 4) After completing all adjustments, turn off the main power supply (8.4V) once.

# 2. Precautions Upon Using the Adjustment Remote Commander

Mishandling of the adjustment remote commander may erase the correct adjustment data at times. To prevent this, it is recommended that all adjustment data be noted down before beginning adjustments and new adjustment data after each adjustment.

# 4-2. DATA PROCESS

The calculation of the DDS display and the adjustment remote commander display data (hexadecimal notation) are required for obtaining the adjustment data of some adjustment items. In this case, after converting the hexadecimal notation to decimal notation, calculate and convert the result to hexadecimal notation, and use it as the adjustment data. Indicates the hexadecimal-decimal conversion table.

xadecimal-deci	mai C	onver	SION	able										2		
Lower digit of hexadecimal	0	1	2	3	4	5	6	7	8	9	A	В	С	D	·Ε	F
Upper digit of hexadecimal											(日)	(円)	(_)	(占)	(E)	(/
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	. 4
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	6
4	64	65	66	67	68	69	70	71	72	73	74	77	76	77	78	7
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	9
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	1
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	1
88	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	1
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	1
A (A)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	1
B (b)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	1
C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	2
D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	2
E ( <u>E</u> )	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	2:
F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	2:

**Note:** The characters shown in the parenthesis ( ) shown the display on the adjustment remote commander.

(Example) If the DDS display or the adjustment remote commander shows BD (bd);

Because the upper digit of the adjustment number is B ( $\beta$ ), and the lower digit is D ( $\beta$ ), the meeting point "189" of ① and ② in the above table is the corresponding decimal number.

Table. 5-4-1

# 4-3. SERVICE MODE

# 1. Setting the Test Mode

Page D	Address 10	

Data	Function
00	Normal
01	Forced camera power ON
02	Forced VTR power ON
03	Forced camera + VTR power ON
05	Forced memory power ON

- Before setting the data, select page: 0, address: 01, and set data: 01.
- For page D, the data set is recorded in the non-volatile memory by pressing the PAUSE button of the adjustment remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off (8.4Vdc).
- After completing adjustments/repairs, be sure to return the data of this address to 00, and press the PAUSE button of the adjustment remote commander.

Select page: 0, address: 01, and set data: 00.

# 2. Emergence Memory Address

Page C	Address 38 to 43

Address	Contents
38	EMG code when first error occurs
2.4	Upper: MSW code when shift starts when first
3A	Lower: MSW code when first error occurs
3B	Lower: MSW code to be moved when first error occurs
3C	EMG code when second error occurs
3E	Upper: MSW code when shift starts when second error occurs  Lower: MSW code when second error occurs
3F	Lower: MSW code to be moved when second error occurs
40	EMG code when last error occurs
42	Upper: MSW code when shift starts when last error occurs  Lower: MSW code when last error occurs
43	Lower: MSW code to be moved when last error occurs

When no error occurs in this unit, data "00" is written in the above addresses (38 to 43). when first error occurs in the unit, the data corresponding to the error is written in the first emergency address (38 to 3B). In the same way, when the second error occurs, the data corresponding to the error is written in the second emergency address (3C to 3F). Finally, when the last error occurs, the data corresponding to the error is written in the last emergency address (40 to 43).

Note: After completing adjustments, be sure to initialize the data of addresses 38 to 43 to "00".

# Initializing method:

- 1) Select page: 0, address: 01, and set data: 01.
- Select page: C, address: 38, set data: 00, and press the PAUSE button.
- 3) Select address: 39 to 43 and set data: "00" into them in same way as in address: 38.
- 4) Select page: 0, address: 01, and set data: 00.

#### 2-1. EMG Code (Emergency Code)

Codes corresponding to the errors which occur are written in addresses 38, 3C and 40. The type of error indicated by the code are shown in the following table.

Code	Emergency Type
00	No error
10	Loading motor emergency during loading
11	Loading motor emergency during unloading
22	T reel emergency during normal rotation
23	S reel emergency during normal rotation
24	T reel emergency (Short circuit between S reel terminal and T reel terminal)
30	FG emergency at the start up of the capstan
40	FG emergency at the start up of the drum
42	FG emergency during normal rotation of the drum

# 2-2. MSW Code

#### MSW when errors occur:

Information on MSW (mode SW) when errors occur

# MSW when movement starts:

Information on MSW when movements starts when the mechanism position is moved (When the L motor is moved)

# MSW of target of movement:

Information on target MSW of movement when the mechanism position is moved

# Mechanical Position

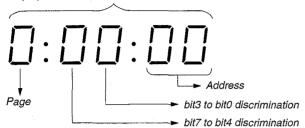
<b>←</b>	- UNLO	OAD														LOAD -	<b>&gt;</b>
Ε	EJECT	BL	ULE	BL	SR	BL	HL	BL	LE	BL	STOP	BL	RP	BL	REW	BL	]
					_			 	0	_	0		_				¬ A (LSB)
i	_	!	0	<u> </u>	0		0	<u> </u>			0	_		<u> </u>		k	<b>⊸</b> B
1	_				_	<del></del>	0		_	_			0	-	0		<b>←</b> C
1	0	<del></del> -	0	} <del></del>				<u> </u>		_	; -	¦ <del>- '</del>			0		├ <b>⊸</b> ─ D (MSB)
I I	II	11	II.	11,	11	11	11		П	11	H		11		H	Н	1
1	7	T	S	្កា	D	TT :	9	i mi	П	П	C	П	Φ.	ָּרָר <u>:</u>	ω	TI	
i		1 i		i i				 ! ! L !						 ! !	!		1
1		LS Chassis movement section										-				-{	
l L		<i>}</i> !											<b>!</b>	Pincr	roller pre	essing	1
Ų	<del></del>	İ												-	<del></del>		.i _i
	ock rele														Tensio	n regulator	
-c	assette	comr	artment														

Position	Code	Contents
EJECT	7	Position at which the cassette component lock is released, at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	F	BLANK code, at the boundary between codes.
USE	5	EJECT completion position. When the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SR	D	Code during loading.
HL	9	Guide loading are performed here.
LE	Е	Current limiter turned off.
STOP	С	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
RP	В	PB, REC, CUE, PAUSE positions. When pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
REW	3	REW position. The tension regulator is half on. This position is not used except for the REW

# 3. Bit Value Discrimination

Bit values must be discriminated using the display data of the adjustment remote commander for following items. Use the table below to discriminate if the bit value is "1" or "0".

Display on the adjustment remote commander



Dis	play on the		Bit v	alues	
	djustment remote ommander	bit3 or bit7	bit2 or bit6	bit1 or bit5	bit0 or bit4
	0	0	0	0	0
	1	0	0	0	1
	2	0	0	1	0
	3	0	0	1	. 1
	4	0	1	0	0
	5	0	1	0	1
	6	0	1	1	0
	7	0	1	1	1
	8	1	0	0	0
	9	1	0	0	1
	A (月)	1	0	1	0
	В (Ь)	1	0	1	1
	C(_)	1	1	0	0
	D (d)	1	1	0	1
	E ( <i>E</i> )	1	1	1	0
	F (F)	1	1	1	1

**Example:** If "8E" is displayed on the adjustment remote commander, the bit values for bit7 to bit4 are shown in the (a) column, and the bit values for bit3 to bit0 are shown in the (b) column.

# 4. Switch Check (1)

Page 2	Address 43

Bit	Function	When bit value=1	When bit value=0
0	VTR MODE SW	OFF	ON
1	CAM MODE SW	OFF	ON
2	START/STOP SW	OFF	ON
3	EJECT SW	OFF	ON
4	CC DOWN SW	OFF	ON
5	PHOTO FREEZE SW	OFF	ON
6			
7	PHOTO REC SW	OFF	ON

# Using method:

- 1) Select page: 2, address: 43.
- By discriminating the bit value of display data, the state of the switches can be discriminated.

5. Switch Check (2)

1		111 (0) (7
ı	Page 2	Address 60 to 67
Ц	1 450 2	

Using method:

1) Select page: 2, address: 60 to 67.

2) By discriminating the display data, the pressed key can be discriminated

discriminated				Data			
Address	00 (00 to 0A)	19 (0B to 24)	32 (25 to 44)	59 (45 to 6E)	85 (4F to 9F)	B8 (A0 to D4)	EE (D5 to FF)
60 (KEY AD0) (IC2204 <b>93</b> )	STOP (FK4880 block) (S800)	REW (FK4880 block) (S802)	PLAY (FK4880 block) (S804)	REC (FK4880 block) (S807, 808)			No key input
61 (KEY AD1) (IC2204 ��)	PAUSE (FK4880 block) (S801)	FF (FK4880 block) (S803)	PHOTO REC (FK4880 block) (S811)	SELF TIMER (FK4880 block) (S805)	TC RESET (FK4880 block) (S809)		No key input
62 (KEY AD2) (IC2204 <b>9</b> )	FADER (ED-48 block) (S7000)	BACK LIGHT (ED-48 board) (S7001)		EDIT SEARCH – (ED-48 board) (S7002)	EDIT SEARCH + (ED-48 board) (S7003)		No key input
63 (KEY AD3) (IC2204 <b>®</b> )	EXPOSURE (FP-18, S103)	PROGRAM AE (FP-18, S102)	WHITE BALANCE (FP-18,S101)	SHUTTER (FP-18, S100)	AUTO LOCK HOLD (CK-80 board) (S7214)	AUTO LOCK AUTO (CK-80 board) (S7214)	(CK-80 board) (S7214)
64 (KEY AD4) (IC2204 <b>9</b> )	TITLE (CK-80 board) (S7202)	DIGITAL EFFECT (CK-80 board) (S7205)	PICTURE EFFECT (CK-80 board) (S7208)	EXECUTE (CK-80 board) (S7219)	ZEBRA 100% (CK-80 board) (S7210)	ZEBRA 70% (CK-80 board) (S7210)	ZEBRA OFF (CK-80 board) (S7210)
65 (KEY AD5) (IC2204 98)	END SEARCH (CK-80 board) (S7201)	DISPLAY (CK-80 board) (S7204)	MENU (CK-80 board) (S7207)	ND FILTER (FP-21, S702)	FOCUS INFINITY (FP-21, S700)	FOCUS AUTO (FP-21, S700,701)	
66 (KEY AD6) (IC2204 99)	MEMORY + (CK-80 board) (S7200)	MEMORY – (CK-80 board) (S7203)	MEMORY INDEX (CK-80 board) (S7206)	MEMORY DELETE (CK-80 board) (S7209)	MEMORY PLAY (CK-80 board) (S7209)	PANEL REVERSE (FP-16, S001)	PANEL NORMAL (FP-16, S001)
67 (KEY AD7) (IC2204 @)	PANEL BRIGHT + (FP-19, S503)	PANEL BRIGHT – (FP-19, S502)	VOLUME + (FP-19, S501)	VOLUME – (FP-19, S500)	DATA CODE (CK-80 board) (S7212)	PANEL CLOSE (FP-16, S002)	PANEL OPEN (FP-16, S001)

# 6. Record of Use Check

Page 2	Address A2 to AA
1 1 8 1 -	

Address	Function		Remarks
A2		Minutes	
A3	Drum rotation counted time (BCD code)	Hour (L)	10th place digit and 1st place digit of counted time (decimal digit)
A4	1 –	Hour (H)	1000th place digit and 100th place digit of counted time (decimal digit)
A5		Year	
A6	User initial power on date (BCD code)	Month	After setting the clock, set the date of power on next.
A7		Day	
A8		Year	
A9	Final condensation occurrence date	Month	
AA	(BCD code)	Day	

Using method:

1) The record of use data is displayed at page: 2, addresses: A2 to AA.

Note: This data will be erased when the coin lithium battery (CK-80 board BT7200) is removed (reset).

# SECTION 6 REPAIR PARTS LIST

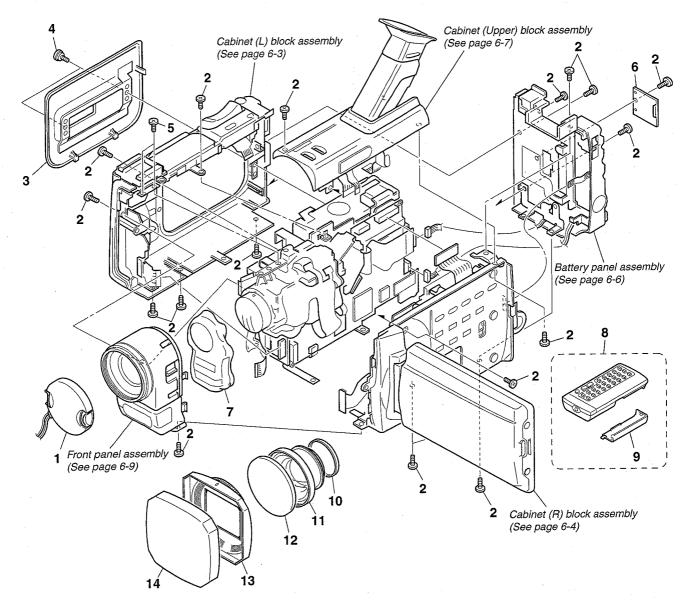
# 6-1. EXPLODED VIEWS

# NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation CND: Canadian model

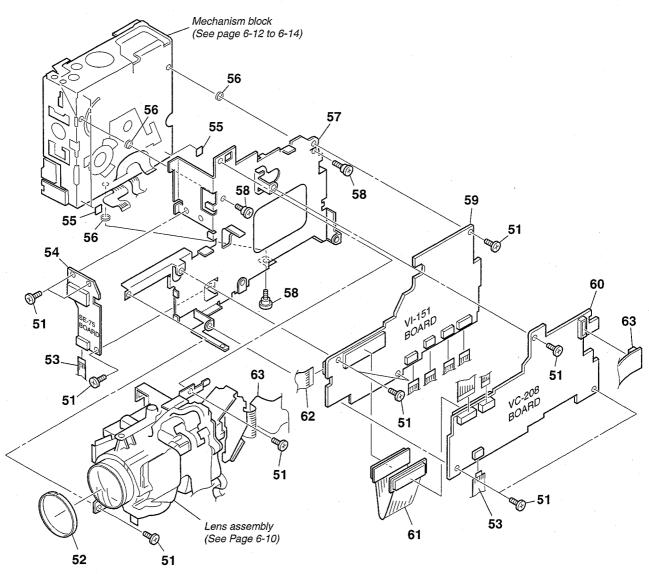
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

# 6-1-1. OVERALL SECTION



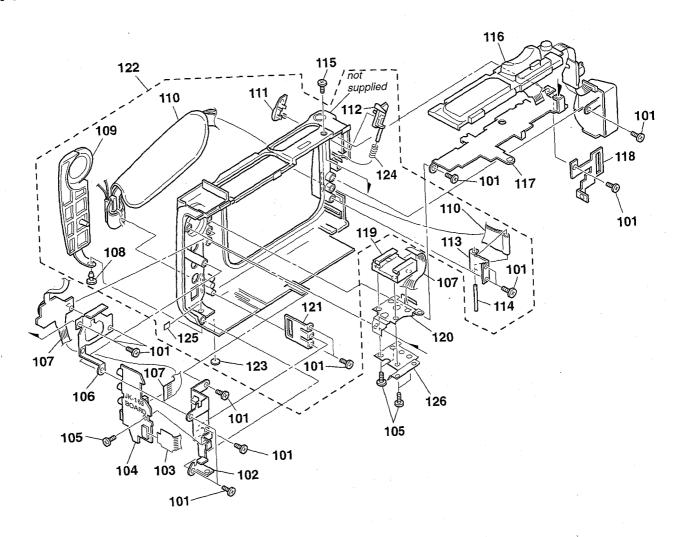
Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>	Ref. No.	Part No.	Description	Remarks
1 2 3 4 5	X-3948-999-1 3-989-746-01	CAP ASSY, LENS SCREW (M2), LOCK ACE, P2 LID ASSY, CASSETTE SCREW (M2 STEP) SCREW (M2), LOCK ACE, P2		8 9 10 11 12	3-053-056-01 3-053-549-01 3-052-859-01	REMOTE COMMANDER (RMT-811) LID, BATTERY CASE CAP, WIDE CONVERSION (58.5 Ø) CONVERSION, WIDE CAP, WIDE CONVERSION (85 Ø)	
6 7	3-051-885-01 3-052-033-01	COVER, CPC SHEET, ACOUSTIC ISOLATION		13 14	3-052-849-01 3-053-551-01	LID, HOOD CAP, HOOD	

# 6-1-2. MECHANISM FRAME SECTION



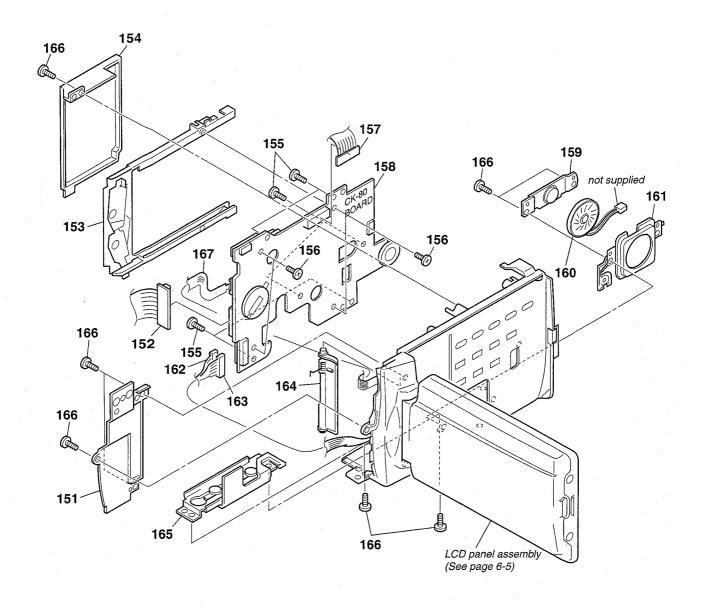
Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>
51 * 52 53 54	3-052-621-01 1-670-982-11 A-7073-675-A	SCREW (M2), LOCK ACE, P2 CUSHION, LENS FP-14 FLEXIBLE BOARD SE-75 BOARD, COMPLETE SHEET, VIBRATION PROOF		58 59 59 60 61	A-7094-065-A A-7094-121-A A-7093-974-A	SCREW (M2), STEP VI-151(D) BOARD, COMPLETE (PD10 VI-151(D) BOARD, COMPLETE (PD10 VC-208 BOARD, COMPLETE FP-8 FLEXIBLE BOARD	,
* 56 57	3-052-802-01	PIN, MD GROUND FRAME ASSY, MD		62 63	1-670-980-11	FP-12 FLEXIBLE BOARD CD-202 BOARD, COMPLETE	

# 6-1-3. CABINET (L) SECTION



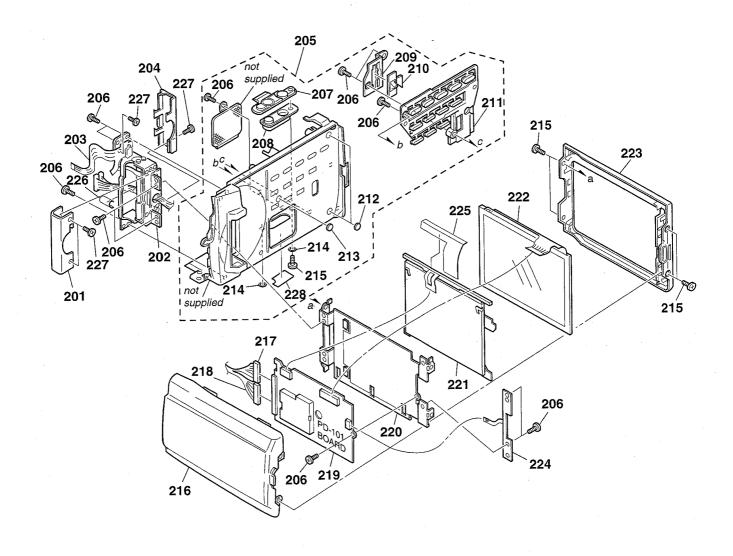
Ref. No.  101 102 103 104 105	3-051-902-01	FP-11 FLEXIBLE BUARD JK-163 BOARD, COMPLETE SCREW (M2), LOCK ACE, P2 SHEET METAL, S TERMINAL	<u>Remarks</u>	Ref. No.  115 116 117 118 119 120 121 122	3-968-729-01 1-475-949-21	CABINET (L) ASSY (US,UND)	
108 110	3-051-930-01 3-051-873-01 3-051-899-01	PIN, JACK BELT, GRIP		122 * 123	X-3949-144-1 3-051-944-01	CABINET (L) ASSY (AEP)	
109 111 112 113 114	3-051-864-01 3-051-865-01 3-051-866-01 3-703-357-08	BUTTON, EJECT LOCK, EJECT BRACKET (REAR), BELT		124 * 125 126	3-302-492-00 3-052-738-01 3-053-541-01	SPACER (JC)	

# 6-1-4. CABINET (R) SECTION



Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>
* 151	3-051 <b>-</b> 920-01	LID, LCD HINGE		160	1-505-619-11	SPEAKER (2.0 CM)	
152	1-670-981-21	FP-13 FLEXIBLE BOARD		* 161	3-051-906-01	HOLDER, SP	
153	3-052-482-01	EJECTOR, CARD		162	1-958-983-11	HARNESS (CP-81) 12PIN	
* 154	3-051-918-01	COVER, PM		163	1-958-984-11	HARNESS (CP-82) 13PIN	
155	3-989-735-41	SCREW (M1.7), LOCK ACE, P2		164	X-3949-119-1	PLATE ASSY, BLIND	
156	3-051-931-01	ACE (M2), LOCK		165	X-3948-945-1	SLIDE ASSY, PM	
157	1-670-977-21	FP-9 FLEXIBLE BOARD		166	3-968-729-01	SCREW (M2), LOCK ACE, P2	
158	A-7073-678-A	CK-80 BOARD, COMPLETE		167	1 <b>-</b> 670-983-21	FP-16 FLEXIBLE BOARD	
* 159	X-3948-943-1	PLATE ASSY, SP FIXED					

# 6-1-5. LCD PANEL SECTION



							_
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
201	3-051-921-11	COVER (FRONT), HINGE		215	3-968-729-01	SCREW (M2), LOCK ACE, P2	
201	X-3948-944-1	HINGE ASSY		216	X-3949-113-1	CABINET (C) ASSY, P	
202	1-670-983-21	FP-16 FLEXIBLE BOARD		· 217	1-958-983-11	HARNESS (CP-81)	
203	3-051-922-11	COVER (REAR), HINGE		218	1-958-984-11	HARNESS (CP-82)	
204	X-3949-110-1	CABINET (R) ASSY		219	A-7073-679-A	PD-101 BOARD, COMPLETE	
200	7 0040 110 1	5/15/1121 (H) / 1001					
206	3-968-729-51	SCREW (M2), LOCK ACE, P2		220	X-3948-961-1	FRAME ASSY, PANEL	
207	3-051-840-01	SCREW, TRIPOD		△221	1-517-754-21	TUBE, FLUORESCENT, COLD CATHODI	Ξ
208	3-051-842-01	HOLDER, TRIPOD SCREW		222	1-803-274-21	MODULE, CRYSTAL INDICATION	
209	3-051-839-01	COVER, SS MODE KNOB		223	X-3949-114-1	CABINET (M) ASSY, P	
210	3-051-835-01	KNOB. SS MODE		224	1-670-986-21	FP-19 FLEXIBLE BOARD	
210	0 001 000 01	(4.05, 00 1					
211	3-051-834-01	BUTTON, R		* 225	3-051-932-01	COVER, LIGHT GUIDE FLEXIBLE	
212	3-959-978-02	CUSHION, PANEL		* 226	3-846-067-21	SPACER (C)	
212	3-052-521-01	CUSHION (2), PANEL		<b>2</b> 27	3-989-735-41	SCREW (M1.7), LOCK ACE, P2	
213	3-051-848-01	WASHER, TRIPOD SCREW		228	3-052-895-01	BLIND, STAND	
214	0-001-0 <del>1</del> 0 01	WHOMEN, I'M OD COMEN		•			

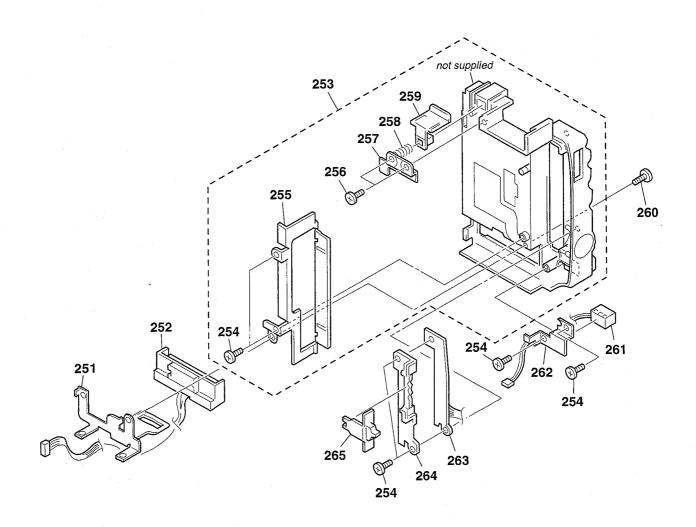
Note:

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

# Note:

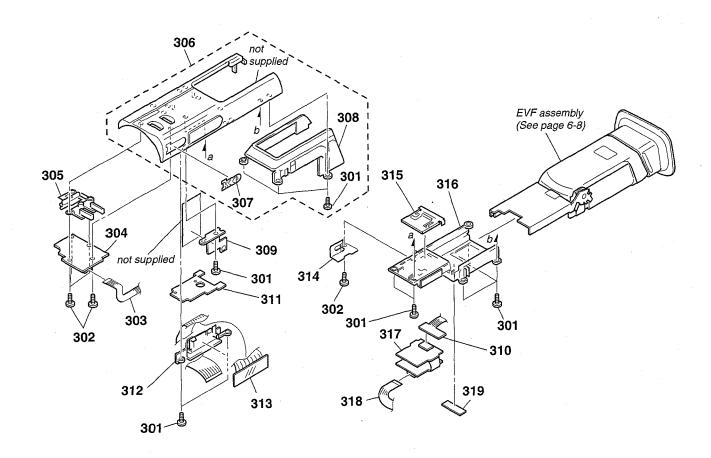
Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## 6-1-6. BATTERY PANEL SECTION



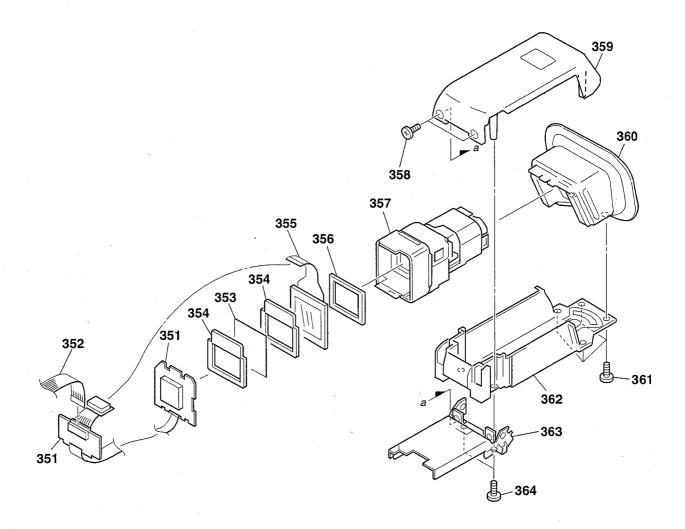
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>	Remarks
251	3-051-905-01	SHEET METAL (LOWER), STRAP		259	3-051-950-01	CLAW, BT LOCK	
252		TERMINAL BOARD, BATTERY		260	3-968-729-01	SCREW (M2), LOCK ACE, P2	
253	X-3949-001-1	PANEL ASSY, BATTERY					
254	3-948-339-01	SCREW, TAPPING		261	1-785-247-11	CONNECTOR, DC-IN	
255	X-3948-957-1	DOOR ASSY, PM		262	3-051-915-01	PLATE, DC FIXED	
				263	1-670-985-21	FP-18 FLEXIBLE BOARD	
256	3-713-791-71	SCREW (M1.7X4)		264	3-051-917-01	HOLDER, AL KNOB	
257	3-051-951-01	COVER, BT LOCK		265	3-051-916-01	KNOB, AL	
258	3-052-017-01	SPRING, BT LOCK					

## 6-1-7. CABINET (UPPER) SECTION



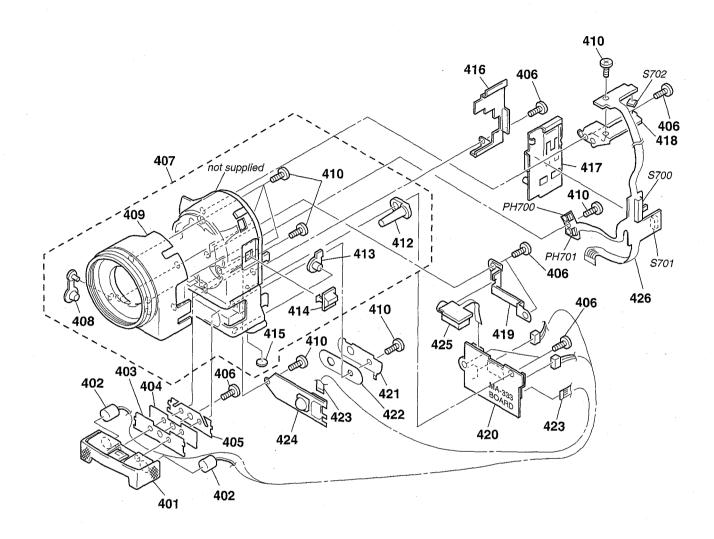
Ref. No.	Part No.	Description	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
301	3-968-729-01	SCREW (M2), LOCK ACE, P2		311	3-051-894-01	RETAINER, SLIDER	
302	3-968-729-51	SCREW (M2), LOCK ACE, P2	1	* 312	3-051-893-01	RETAINER, LCD	
303	1-670-984-11	FP-17 FLEXIBLE BOARD		313	A-7093-972-A	PANEL BLOCK ASSY, INDICATION	
304	A-7073-684-A	ED-48 BOARD, COMPLETE		* 314	3-051-898-01	PLATE, SLIDER GROUND	
305	3-051-892-01	BUTTON, EDIT		315	3-051-923-01	PLATE, VF CLICK	
				•			
306	X-3949-111-1	CABINET (UPPER) ASSY		316	3-051-897-01	BASE, VF SLIDE	
307	3-963-933-01	EMBLEM, CCD	-	317	A-7073-682-A	VF-121 BOARD, COMPLETE	
* 308	3-051-869-01	COVER, SIDE		318	.1-670-978-11	FP-10 FLEXIBLE BOARD	
* 309	3-051-895-01	JOINT, U-R		319	3-831-441-11	CUSHION	
310	1-670-987-21	FP-20 FLEXIBLE BOARD					

## 6-1-8. EVF SECTION



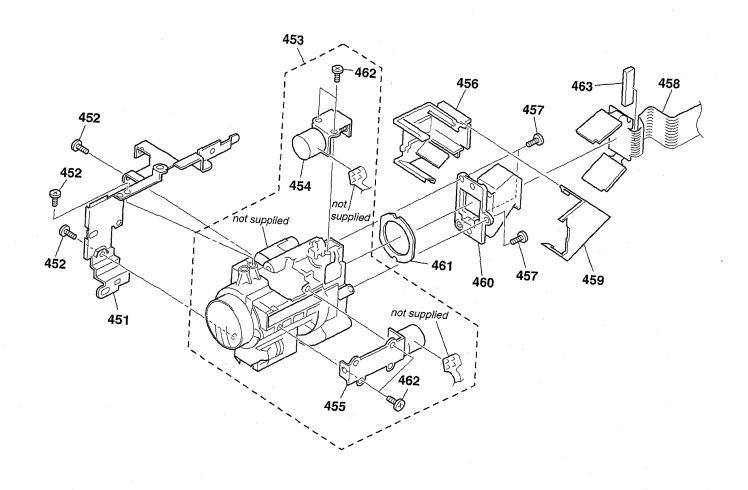
Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>
351 352 * 353	1-670-987-21	LB-55 BOARD, COMPLETE FP-20 FLEXIBLE BOARD ILLUMINATOR (458), BL		358 359 360	3-051-896-01	SCREW (M2), LOCK ACE, P2 CABINET (UPPER), EVF EYE CUP ASSY	
354 355		CUSHION (458), LCD		361 362	3-713-791-01	SCREW (M1.7X5), TAPPING, P2 CABINET (LOWER) ASSY, EVF	
* 356 357		CUSHION (1), LCD LENS ASSY (458), VF		363 364		SLIDER ASSY, VF SCREW (M1.7X8), TAPPING, P2	

## 6-1-9. FRONT PANEL SECTION



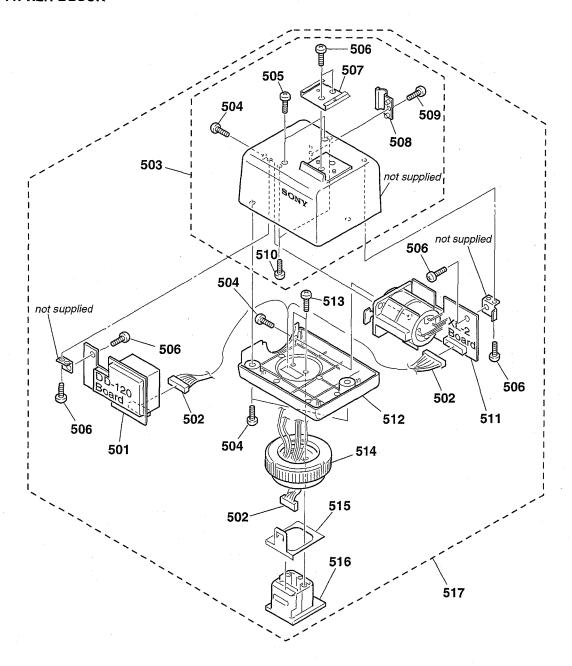
Ref. No.	Part No.	<u>Description</u>	Remarks	Ref, No.	Part No.	Description	Remarks
401 402 403 * 404 405	X-3948-950-1 1-418-014-11 3-051-926-01 3-051-927-01 3-051-928-01	GRILLE ASSY, MICROPHONE MICROPHONE UNIT LID, MICROPHONE PLATE, MICROPHONE CLOSE UP PLATE, VIBRATION PROOF		418 * 419 420 * 421 422	X-3948-954-1 3-051-887-01 A-7073-734-A 3-051-888-01 3-051-891-01	RETAINER ASSY, ND RETAINER, JACK MA-333(D) BOARD, COMPLETE RETAINER, MICROPHONE CUSHION, MICROPHONE RETAINER	
406 407 408 409 410	3-948-339-01 X-3949-112-1 3-051-942-01 3-051-907-21 3-968-729-51	SCREW, TAPPING PANEL ASSY, FRONT LID, MICROPHONE JACK COVER, FRONT SCREW (M2), LOCK ACE, P2		423 424 425 426 PH700	A-7073-735-A 1-670-989-21 1-670-988-21	FP-37 FLEXIBLE BOARD RI-10(D) BOARD, COMPLETE FP-22 FLEXIBLE BOARD FP-21 FLEXIBLE BOARD (Including \$700, \$10	3701, S702)
* 412	3-051-912-01	TALLY, FRONT		111100		1110 0NA1312N0130	
* 413	3-051-940-01	WINDOW, SIDE IR		PH701	8-749-014-54	HIC CNA1312K01S0	
414	3-051-935-01	MF KNOB		S700	1-771-487-21	SWITCH, SLIDE	
* 415	3-051-944-01	FOOT, RUBBER	ĺ	S701	1-762-851-21	SWITCH, TACT	
* 416	3-051-929-01	REINFORCEMENT, MF		S702	1-762-851-21	SWITCH, TACT	
417	X-3948-949-1	RETAINER ASSY, MF	ļ				

# 6-1-10. LENS BLOCK SECTION



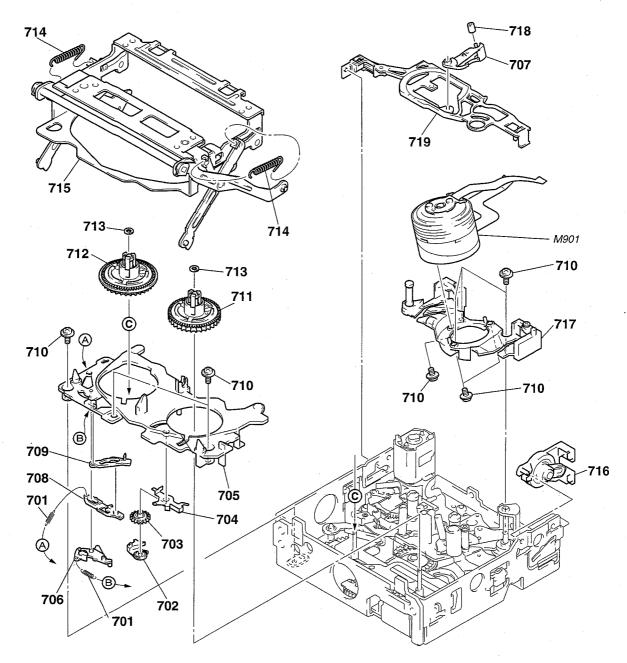
Ref. No.	Part No.	Description					
451 452	3-051-924-01		Remarks	Ref. No.	Part No.	Description	Pamarica
453	3-948-339-01 1-758-174-11	LENS, ZOOM (VCL 4248VA)	1	459 460	X-3948-953-1 A-7093-999-A	COVER (R) ASSY PRISM	<u>Remarks</u>
454 455	3-709-428-01 3-709-429-01	WIUTUR, FOCUS				(FD100)	•
		MOTOR, ZOOM		460	A-7030-948-A	(Including three CCD PRISM ASSY (PD100P)	•
456 457	X-3948-952-1 3-713-791-61	COVER (L) ASSY, PRISM		461 462	3-989-731-01	TO TO THE OLDER	imagers)
		SCREW (M1.7X7), TAPPING, P2 CD-202 BOARD, COMPLETE				SCREW (M1.7X3.5), TAPPING	
		· · · · · · · · · · · · · · · · · · ·	{ ;	* 463	3-053-354-01	CUSHION, CD FLEXIBLE	

6-1-11. XLR BLOCK



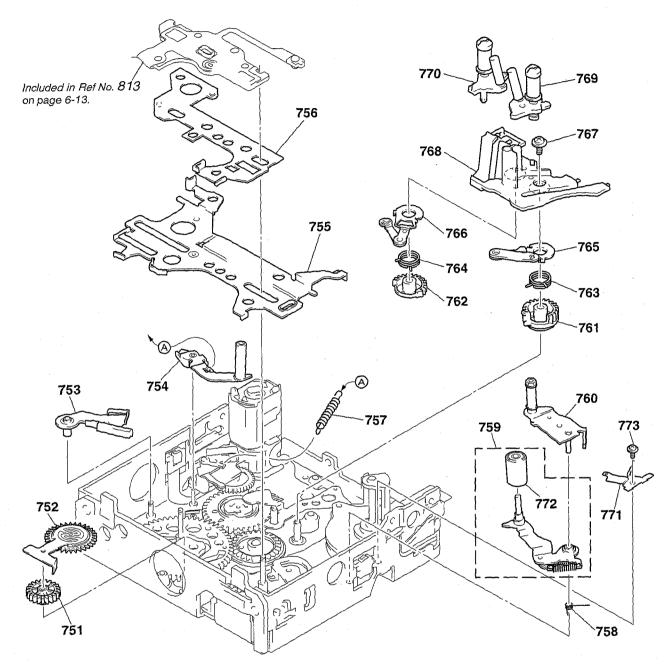
Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
501 502 503 504 505	1-959-236-11 X-3949-116-1 7-627-854-38	DD-120 MOUNT HARNESS (XL-51) BOX (UPPER) ASSY, TERMINAL SCREW,PRECISION +P 2.6X5 TYPE3 SCREW +B 3X8		510 511 512 513 514	A-7073-738-A 3-052-847-01 2-370-905-51	SCREW (M1.7X3.5), SPECIAL HEAD XL-2 MOUNT BOX (LOWER), TERMINAL SCREW (B) (2X12), TAPPING RETAINER ASSY, SHOE	
506 507 * 508 509	3-724-511-02 3-678-684-01	SCREW (M2X3), LOCK ACE, P2 SHOE, ACCESSORY HOLDER, CABLE SCREW +P 2.6X4.0		515 516 517	1-774-868-11	PLATE ASSY, HOT SHOE PLUG, CONNECTOR 8P XLR BLOCK ASSY	

6-1-12. CASSETTE COMPARTMENT, DRUM AND REEL TABLE ASSEMBLY



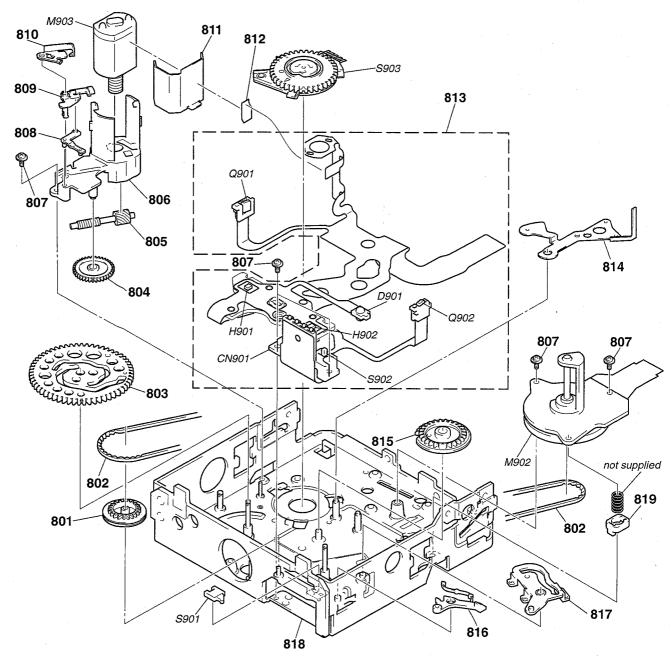
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	<u>Remarks</u>
701	3-988-312-01	SPRING, EXTENSION		711	X-3948-445-1	TABLE (T) ASSY, REEL	
702	3-988-220-01	BRAKE (T)		712	X-3948-444-1	TABLE (S) ASSY, REEL	
703	3-988-221-01	GEAR (T), BRAKE		713	3-989-465-01	WASHER, STOPPER	
704	3-988-222-01	SPRING (T), BRAKE		714	3-988-298-01	SPRING EXTENSION	
705	3-988-215-02	BASE, CASSETTE		715	X-3948-441-2	CASSETTE COMPARTMENT ASSY	
706	3-988-217-01	ARM (S), RESET		716	X-3948-443-2	DAMPER ASSY	
707	3-988-281-02	ARM, HC		717	A-7093-612-A	DRUM BASE BLOCK ASSY	
708	3-988-219-01	RACK (S), BRAKE		718	3-988-282-01	ROLLER, HC	
709	3-988-218-01	BRAKE (S)		719	3-988-283-01	STOPPER, TAPE FALL	
710	3 <b>-</b> 947 <b>-</b> 503-01	SCREW (M1.4X2.5)		M901	A-7048-889 <b>-</b> A	DRUM ASSY (DEH-14B-R)	

6-1-13. TAPE GUIDE, PINCH SLIDER ASSEMBLY AND BRAKE SLIDER ASSEMBLY



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	<u>Remarks</u>
751	3-988-263-01	GEAR, RELAY		763	3-988-258-01	SPRING (GLT), TORSION	
752	X-3948-442-2	GEAR ASSY, GOOSENECK		764	3-988-253-01	SPRING (GLS), TORSION	
753	X-3948-435-2	PLATE ASSY, TG1 ADJUSTMENT		765	X-3948-440-1	ARM (T) ASSY, GL	
754	X-3948-434-1	ARM ASSY, TG1			•		
755	X-3948-428-2	SLIDER ASSY, PINCH		766	X-3948-439-2	ARM (S) ASSY, GL	
				767	3-947-503-01	SCREW (M1.4X2.5)	
756	X-3948-766-1	SLIDER ASSY, BRAKE		768	3-988-242-01	RAIL, GUIDE	
757	3-988-270-01	SPRING (TG1), TENSION COIL		769	X-3948-438-3	COASTER (T) ASSY	
758	3-988-233-01	SPRING (TG7LD), TORSION		770	X-3948-437-1	COASTER (S) ASSY	
759	X-3948-433-2	ARM ASSY, PINCH					
760	A-7093-501-A	ARM BLOCK ASSY, TG7		771	3-988-690-02	SPRING, TG7 RETAINER	
				772	X-3748-630-2	ROLLER ASSY (DIA. 5.6), PINCH	
761	3-988-257-01	GEAR (T), GL		773	3-053-083-01	SCREW	
762	3-988-252-02	GEAR (S), GL					
						· ·	

6-1-14. EACH GEARS AND LOADING / CAPSTAN MOTOR ASSEMBLY



Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
801	3-988-274-01	PULLEY, CONVERSION		816	3-988-223-01	ARM. EJECT	
802	3-988-276-02	BELT, TIMING		817	3-988-224-01	ARM, PINCH PRESS	
803	3-988-216-01	GEAR, CAM		818	X-3948-431-2	CHASSIS ASSY	
804	3-988-211-01	GEAR, DECELERATION		819	3-050-170-01	HOLDER	
805	3-988-210-01	SHAFT, WORM		CN901	1-784-723-11	PIN, CONNECTOR 4P	
806	3-988-207-01	HOLDER, MOTOR		D901	8-719-067-13	DIODE GL453K	
807	3-947-503-01	SCREW (M1.4X2.5)		H901	8-719-061-28		)B)
808	3-988-303-01	ARM, SPRING HOOK DRIVING		H902	8-719-061-28		,
809	3-988-271-01	BASE, SPRING HOOK FULCRUM		M902	8-835-606-01	MOTOR, DC SCD15A/C-NP (CAPSTAN	,
810	3-988-302-01	HOOK, TG1 SPRING		M903	X-3948-346-1	MOTOR ASSY, L (LOADING)	,
811	3-988-208-01	SHIELD, MOTOR		Q901	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAPE	END)
812	1-657-785-11	FP-248 FLEXIBLE BOARD		Q902		PHOTO TRANSISTOR PT4850F (TAPE	
813	A-7073-418-A	FP-594 BOARD, COMPLETE		S901	1-771-039-51		,
814	3-988-280-03	ARM, HC DRIVING		S902	1 <b>-</b> 572-719-32		
815	3-988-239-01	GEAR, GL DRIVING		S903	1-771-325-11	ENCODER, ROTARY (SWITCH)(MODE	)

## 6-2. ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by mark  $\Lambda$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

Abbreviation

Canadian model

- · Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may
- have some difference from the original one.

  Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:

- RESISTORS All resistors are in ohms. METAL: metal-film resistor METAL OXIDE: Metal Oxide-film resistor F: nonflammable
- COILS uH: μH
- SEMICONDUCTORS In each case, u:  $\mu$ , for example: uA...: μA..., uPA..., μPA..., uPB...,  $\mu$ PB..., uPC...,  $\mu$ PC...,

	CND:	Canadian model	•	uF: μF	JRG.			uPD, μPD	
R	ef. No.	Part No.	Description		<u>Remarks</u>	Ref. No.	Part No.	Description	<u>Remarks</u>
		A-7073-676-A	CD-202 BOARD, COMPLE				A-7073-678-A	CK-80 BOARD, COMPLETE ***********************************	
			· · · · · · · · · · · · · · · (	(Ref.No.:10,0				(Ref.No.:10,0	000 Series)
		(IC100	0,101,102 is not included i	n this compl	ete board.)		3-051-919-01	SHEET, LI PROTECTION	
			< CAPACITOR >					< BATTERY >	
	C100		CERAMIC CHIP 0.1uF	10% 10%	16V 16V	A PT7200	1_500_704_01	BATTERY, V/L RICHARGEABL	
	C101 C102		CERAMIC CHIP 0.1uF CERAMIC CHIP 0.1uF	10%	16V	ZKD17200	1-320-124-21		
	C103		CERAMIC CHIP 0.1uF CERAMIC CHIP 0.1uF	10% 10%	16V 16V	!		< CAPACITOR >	
	C105					C7200	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
	C106 C107	1-107-826-11	CERAMIC CHIP 0.1uF TANTALUM CHIP 4.7uF	10% 20%	16V 10V			< CONNECTOR >	
	C108	1-113-994-11	TANTAL. CHIP 6.8uF	20%	16V				
	C110	1-164-360-11	CERAMIC CHIP 0.1uF	20%	16V 10V	1	1-779-064-11 1-779-065-11		
	C111	1-135-210-11	TANTALUM CHIP 4.7uF	2076	100		1-691-370-11	CONNECTOR, FFC/FPC 6P	
	C112	1-164-360-11	CERAMIC CHIP 0.1uF		16V	1	1-766-336-21	CONNECTOR, FFC/FPC 6P	,
	C115	1-113-994-11	TANTAL. CHIP 6.8uF TANTALUM CHIP 4.7uF	20% 20%	16V 10V	CN7204	1-784-939-11	CONNECTOR, BOARD TO BOARD 60F	
	C117 C118		TANTAL. CHIP 6.8uF	20%	16V	* CN7205	1-695-320-21	PIN, CONNECTOR (1.5MM)(SMD) 2P	
	C119	1-164-360-11	CERAMIC CHIP 0.1uF		16V		1-766-354-21 1-785-239-11	CONNECTOR, FFC/FPC 24P CONNECTOR, EXTERNAL	
			< CONNECTOR >				1-764-680-21	CONNECTOR, FFC/FPC (ZIF) 8P	
	CN100	1-785-433-21	CONNECTOR, BOARD TO	BOARD 40F	)			< DIODE >	
			< COIL >			D7200	8-719-064-61	DIODE 01BZA8.2(TE85L)	
			COOIL			D7201	8-719-064-61	DIODE 01BZA8.2(TE85L)	
	L100		INDUCTOR 100uH			D7202	8-719-404-49 8-719-420-14	DIODE MA111-TX DIODE MA8082-TX	
	L101 L102		INDUCTOR 100uH INDUCTOR 100uH			D7203 D7204		DIODE 01BZA8.2(TE85L)	
			<transistor></transistor>			D7206		DIODE 01BZA8.2(TE85L)	
	0400	0 700 117 79	TRANSISTOR 2SC4178	_E13E1/L_T1		D7207 D7211	8-719-064-61 8-719-064-61	DIODE 01BZA8.2(TE85L) DIODE 01BZA8.2(TE85L)	
	Q100 Q101	8-729-117-73	TRANSISTOR 2SC4178	-F13F14-T1		D7212	8-719-064-61	DIODE 01BZA8.2(TE85L)	
	Q102		TRANSISTOR 2SC4178			D7214	8-719-064-61	DIODE 01BZA8.2(TE85L)	
			< RESISTOR >			D7215	8-719-064-61	DIODE 01BZA8.2(TE85L)	
	R100	1-216-864-11	METAL CHIP 0	5%	1/16W			< 10 >	
	R101	1-216-864-11		5% 5%	1/16W 1/16W	107200	8-759-494-53	IC BU9729K-E2	
	R102 R103	1-216-864-11 1-216-829-11	METAL CHIP 0 METAL CHIP 4.7K	5% 5%	1/16W	107200	0 100 404 00	,0 500/2011 12	
	R104	1-216-829-11	METAL CHIP 4.7K	5%	1/16W			< TRANSISTOR >	
	R105	1-216-829-11	METAL CHIP 4.7K	5%	1/16W	Q7200 Q7201	8-729-230-63 8-729-804-41	TRANSISTOR 2SD1819A-QRS-TX TRANSISTOR 2SB1122-ST-TD	
į						4,501	5 , 25 00 ; TI		

# CK-80 DD-120

Ref. No.	<u>Part No.</u>	Description			<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>
	,	< RESISTOR >					A-7073-737-A	DD-120 BOARD,			
R7200	1-216-809-11	METAL CHIP	100	5%	1/16W				(Re	ef.No.:9,0	00 Series)
R7201	1-216-864-11	METAL CHIP	0	5%	1/16W				`	,	,
R7202	1-216-833-11	METAL CHIP	10K	5%	1/16W			< CAPACITOR >			
R7203	1-216-833-11	METAL CHIP	10K	5%	1/16W						
R7204	1-216-833-11	METAL CHIP	10K	5%	1/16W	C202	1-113-985-11	TANTAL. CHIP	10uF	20%	20V
117 207	1 210 000 11	10121712 01111	1011	3,0	.,	C203	1-164-156-11		0.1uF		25V
R7205	1-216-833-11	METAL CHIP	10K	5%	1/16W	C204	1-135-181-21	TANTALUM CHIP		20%	6.3V
R7205	1-216-833-11	METAL CHIP	10K	5%	1/16W	C205	1-107-826-11		0.1uF	10%	16V
	1-216-833-11	METAL CHIP	10K	5%	1/16W	C206	1-107-826-11		0.1uF	10%	16V
R7207	1-216-855-11	METAL CHIP	680K	5%	1/16W	0200	1 107 020 11	OLITAWIO OTIII	O. Tui	1070	100
R7208	1-216-864-11	METAL CHIP	0	5%	1/16W	C207	1-124-598-11	ELECT	22uF	20%	25V
R7209	1-210-004-11	IVIL IAL OHIT	U	J /0	171000	C210	1-110-618-11		12uF	20%	63V
D70+0	. 4 040 000 44	MAETAL CUID	1 01/	E0/	1/16W	C210		CERAMIC CHIP	0.1uF	2070	50V
R7210	1-216-822-11	METAL CHIP	1.2K	5%							
R7211	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	C212		CERAMIC CHIP	0.1uF	000/	50V
R7212	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	C213	1-110-618-11	ELECT	12uF	20%	63V
R7213	1-216-841-11	METAL CHIP	47K	5%	1/16W	2014	4 400 007 44	0504440 01110	40005	=0/	F0\ /
R7214	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C214	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C216	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R7215	1-216-823-11	METAL CHIP	1.5K	5%	1/16W						
R7216	1-216-823-11	METAL CHIP	1.5K	5%	1/16W			< CONNECTOR >			
R7217	1-216-823-11	METAL CHIP	1.5K	5%	1/16W						
R7218	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	CN201	1-691-550-11	PIN, CONNECTOR	R (1.5MM)(	SMD) 3P	
R7219	1-216-827-11	METAL CHIP	3.3K	5%	1/16W						
		•						< DIODE >			
R7220	1-216-827-11	METAL CHIP	3.3K	5%	1/16W						
R7221	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	D201	8-719-987-21	DIODE SB02-09	CP-TB		
R7222	1-216-831-11	METAL CHIP	6.8K	5%	1/16W						
R7223	1-216-837-11	METAL CHIP	22K	5%	1/16W			< IC >			
R7224	1-216-837-11	METAL CHIP	22K	5%	1/16W						
117 223	1 210 001 11			• , ,	.,	IC201	8-759-521-35	IC TL5001CDR			
R7225	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R7227	1-216-809-11	METAL CHIP	100	5%	1/16W			< COIL >			
R7228	1-216-833-11	METAL CHIP	10K	5%	1/16W			(00,2			
R7229	1-216-837-11	METAL CHIP	22K	5%	1/16W	L201	1-412-058-11	INDUCTOR CHIP	10uH		
R7230	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	L202	1-416-906-11	INDUCTOR 33ul			
117 200	1 210 001 11	ME ME OIM	0.010	• 70	1, 1011	L203	1-414-405-11	INDUCTOR 150L			
R7231	1-216-827-11	METAL CHIP	3.3K	5%	1/16W		1 711 100 11	1110001011 1000	•••		
R7232	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	1		< TRANSISTOR >			
R7233	1-216-822-11	METAL CHIP	1.2K	5%	1/16W			\ 110.000000000			
R7234	1-216-809-11	METAL CHIP	100	5%	1/16W	Q201	8-729-033-65	TRANSISTOR 2	S.1204-T1R		
R7234		METAL CHIP	0	5%	1/16W	Q202		TRANSISTOR 2		516	
n/230	1*210-004-11	MILIAL OTH		. 070	1/1000	Q203		TRANSISTOR 2			
		< SWITCH >				Q204		TRANSISTOR 2			
		< SWITOIT >				Q205		TRANSISTOR 2			
67000	1-762-851-21	SWITCH, KEY BO	ARD MER	MORV I		Q200	0 720 117 02	111/11/0101010101	004177 111	-OLO	
S7200	1-762-851-21		`	,		Q206	8-720-117-32	TRANSISTOR 2	SC/177-T11	516	
S7201			•	,		Q207		TRANSISTOR 2			
S7202		SWITCH, KEY BO				Q207		TRANSISTOR 2			
S7203		SWITCH, KEY BO				U200	0-129-111-32	INANOISIUN Z	3041/7-111	LOLO	
\$7204	1-762-851-21	SWITCH, KEY BO	ארח (חוף)	PLAY)				. DECICEOD .			
	. =00 051 01	OWITOU KEY D	3400 (DIO	ITAL EEEE	)T\			< RESISTOR >			
S7205	1-762-851-21					Door	4 040 005 44	MATTAL OLUD	0.01/	E0/	4/4/01/4
S7206		SWITCH, KEY BO			EX)	R201	1-216-825-11		2.2K	5%	1/16W
S7207		SWITCH, KEY BO				R202	1-216-847-11		150K	5%	1/16W
S7208		SWITCH, KEY BO				R203	1-216-846-11		120K	5%	1/16W
S7209	1-762-851-21	SWITCH, KEY BO	Dard (Mei	ИORY DEL	ETE)	R204	1-216-849-11		220K	5%	1/16W
						R205	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
S7210	1-762-648-21										
S7211	1-762-851-21	SWITCH, KEY BO			Y)	R206	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
S7212	1-762-851-21	SWITCH, KEY BO	DARD (DAT	A CODE)		R208	1-218-881-11	RES,CHIP	27K	0.50%	1/16W
S7213	1-762-851-21	SWITCH, KEY BO	DARD (RES	ET)		R209	1-218-877-11	RES,CHIP	18K	0.50%	1/16W
S7214	1-771-487-21	·				R210	1-218-847-11	RES,CHIP	1K	0.50%	1/16W
						R211	1-216-809-11	METAL CHIP	100	5%	1/16W
S7219	1-762-649-21	SWITCH, ROTAR	Y (SEL/PU	SH EXEC)							
Ţ. <u>.</u>						1					

						DD-1	120	Ε	D-48	F	P-21	FP	-594	JK-	163
	212	1-216-864-11	Description METAL CHIP RES,CHIP	0 5.6K	5% 0.50%	Remarks 1/16W 1/16W	Ref. No	<u>).</u>	<u>Part No.</u>		Description < TRANSIST	OR >			<u>Remarks</u>
R R	R214 R215	1-216-853-11 1-216-833-11		470K 10K 4.7K	5% 5% 5%	1/16W 1/16W 1/16W	Q90 Q90		8-729-907 8-729-907	-25	PHOTO TRA PHOTO TRA	NSIST			
	R217		METAL CHIP	2.2K	5%	1/16W			0.774.000		< SWITCH >		INI CIAI		
		1-216-845-11 1-216-841-11	METAL CHIP METAL CHIP	100K 47K	5% 5%	1/16W 1/16W	\$90 \$90 \$90	2	8-771-039 8-572-719 8-771-325	-32	SWITCH, PL SWITCH, PL ENCODER, I	JSH (1	KEY)(REC	PROOF) H)(MODE)	
		A-7073-684-A	ED-48 BOARD, C	*****	f.No.:10,0	000 Series)			A-7073-67	77-A	JK-163 BOA ******		*****	f.No.:10,0	00 Series)
			< CONNECTOR >	•							< CAPACITO	DR >	,		
. (	CN7000	1-573-346-21	CONNECTOR, FF	C/FPC 6P			C71	100	1-162-964		CERAMIC C		0.001uF	10%	50V
	D7000	8-719-404-49					C71	102	1-162-964 1-162-964 1-162-964 1-162-964	4-11 4-11	CERAMIC CO CERAMIC CO CERAMIC CO	HIP HIP	0.001uF 0.001uF 0.001uF 0.001uF	10% 10% 10% 10%	50V 50V 50V 50V
	D7001	8-719-420-14	DIODE MA8082 < RESISTOR >	2-1X			07	104	1-102-90	<del>1</del> -11	< CONNECT		0.00141	1070	
	R7000 R7001 R7002	1-216-833-11 1-216-822-11 1-216-823-11	METAL CHIP METAL CHIP METAL CHIP	10K 1.2K 1.5K	5% 5% 5%	1/16W 1/16W 1/16W	CN	7101	1-779-36 1-779-33 1-784-42	1-11	CONNECTO CONNECTO CONNECTO	R, FFC	/FPC 14P		
	R7003 R7004	1-216-827-11 1-216-831-11	METAL CHIP METAL CHIP	3.3K 6.8K	5% 5%	1/16W 1/16W					< DIODE >				
	\$7000 \$7001 \$7002	1-762-851-21 1-762-851-21 1-762-851-21	SWITCH, KEY B SWITCH, KEY B	OARD (BAC OARD (EDI	K LIGHT) ISEARCH	-)	D7 D7 D7	100 102 103 104 105	8-719-06 8-719-06 8-719-06 8-719-06 8-719-06	4-61 4-61 4-61	DIODE 01 DIODE 01	BZA8.2 BZA8.2 BZA8.2	(TE85L) (TE85L) (TE85L)		
	S7003	1-/62-851-21	SWITCH, KEY B	OAND (EDI	ISLANUII	+)	D7	106	8-719-06	4-61	DIODE . 01	BZA8.2	(TE85L)		
		1-670-988-21	FP-21 FLEXIBL								< FERRITE				
			(\$700,701,702 i	is included i	ef.No.:10, n this flex	,000 Series) kible board.)	FB FB	710 711 712 713	1-500-44	4-11 4-11	FERRITE FERRITE FERRITE FERRITE	0UH 0UH 0UH 0UH	l I .		
	PH700	8-749-014-54	HIC CNA1312K		•			714			FERRITE	QUF	I .		
	PH701	8-749-014-54	HIC CNA1312K	01S0 LE BOARD	- and and a second		FB FB FB	715 716 717 718	1-500-44	4-11 4-11 4-11	FERRITE FERRITE FERRITE	0UH 0UH 0UH	 		
			*******		Ref.No.:9	,000 Series)		719	1-500-44	14-11	FERRITE < JACK >	0UF	1		
			< CONNECTOR	>			J7	100	1-565-27	'6-31	JACK, ULT				
	CN001	1-784-723-11		OR 4P			- 1	101 102	1-563-28 1-778-04		JACK, SMA JACK, SMA				
	DO01	8-719-067-13	< DIODE >  DIODE GL453K								< COIL >				
	D901	0-7 19-007-10	< HOLE ELEME				L7 L7	'100 '101 '102	1-414-75 1-414-75	7-11 7-11	INDUCTOF INDUCTOF INDUCTOF	₹ 100u ₹ 100u	H H		
	H901 H902	8-719-061-28 8-719-061-28						'103 '104			INDUCTOF	R 1uH	п		
							_	74.0-	4 040 5		< RESISTO		0	£0/	1/1614
							R7	71.02	1-216-86	04-11	METAL CH	IP ·	0	5%	1/16W

### JK-163 LB-55 MA-333

017.14										
Ref. No.	Part No.	Description		<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>
		< VARISTOR >			C7308	1-135-259-11	TANTAL CHIP	10uF	20%	6.3V
VDR711	1-801-862-11	VARISTOR, CHIP			C7309 C7310	1-135-259-11 1-162-968-11	TANTAL. CHIP CERAMIC CHIP	10uF 0.0047uF	20% 10%	6.3V 50V
VDR714	1-801-862-11	VARISTOR, CHIP			C7312	1-107-826-11	CERAMIC CHIP		10%	16V
		VARISTOR, CHIP VARISTOR, CHIP			C7313	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
		VARISTOR, CHIP			C7314	1-162-967-11	CERAMIC CHIP		10%	50V
			<u> </u>	A STATE	C7315 C7316	1-162-964-11 1-162-964-11	CERAMIC CHIP CERAMIC CHIP		10% 10%	50V 50V
	A-7073-683-A	LB-55 BOARD, COMPLETE			C7317	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		**************************************	No.:10.0	00 Series)	C7318	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		`		,	C7319	1-107-826-11	CERAMIC CHIP		10%	16V
		< CAPACITOR >			C7320 C7321	1-162-927-11 1-162-927-11	CERAMIC CHIP		5% 5%	50V 50V
C5201	1-162-970-11	CERAMIC CHIP 0.01uF	10%	25V	C7322	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5202 C5203	1-113-642-11 1-115-566-11	TANTAL. CHIP 47uF CERAMIC CHIP 4.7uF	20% 10%	10V 10V	C7324	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5205	1-107-682-11	CERAMIC CHIP 1uF	10%	16V	C7325	1-107-826-11	CERAMIC CHIP		10%	16V
<b>△</b> C5206	1-163-020-00	CERAMIC CHIP 0.0082uF	10%	50V	C7326 C7328	1-107-826-11 1-107-826-11	CERAMIC CHIP		10% 10%	16V 16V
<b>△</b> C5207	1-163-020-00	CERAMIC CHIP 0.0082uF	10%	50V	C7329	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
<b>△</b> C5208	1-163-020-00	CERAMIC CHIP 0.0082uF	10%	50V	C7330	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			C7331	1-107-826-11	CERAMIC CHIP		10%	16V
CN5201	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 2	27P		C7332 C7333	1-162-966-11 1-164-245-11	CERAMIC CHIP CERAMIC CHIP		10% 10%	50V 25V
	1-691-354-21	CONNECTOR, FFC/FPC (ZIF) 1			C7338	1-164-227-11	CERAMIC CHIP		10%	25V. 25V
		< DIODE >			C7339	1-164-227-11	CERAMIC CHIP	0.022uF	10%	20 V
. 55004	0.740.050.40	DIODE 100070/TE051\			C7340 C7341	1-164-245-11 1-164-245-11	CERAMIC CHIP		10% 10%	25V 25V
<b>△</b> D5201	8-719-056-49	DIODE 1SS370(TE85L)			C7341	1-162-962-11	CERAMIC CHIP		10%	50V
		< COIL >			C7343 C7345	1-162-962-11	CERAMIC CHIP		10%	50V 10V
L5201	1-412-031-11	INDUCTOR CHIP 47uH								
L5202	1-412-029-11	INDUCTOR CHIP 10uH			C7346 C7347	1-115-156-11 1-164-156-11	CERAMIC CHIP			10V 25V
		< FLUORECENT INDICATOR >			C7350	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
△ ND5201	1-517-758-11	TUBE, FLUORESCENT (0.55 II	NCH)		C7351 C7352	1-109-982-11 1-109-982-11	CERAMIC CHIP CERAMIC CHIP		10% 10%	10V 10V
		< TRANSISTOR >			C7353 C7354	1-104-852-11 1-135-259-11	TANTAL. CHIP TANTAL. CHIP	22uF 10uF	20% 20%	6.3V 6.3V
<b>△</b> Q5201	8-729-039-24	TRANSISTOR FX216-TL1			C7355	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
		< RESISTOR >			C7356 C7357	1-107-826-11 1-107-826-11	CERAMIC CHIP		10% 10%	16V 16V
					0.00.					
R5201 R5202	1-216-839-11 1-216-809-11	METAL CHIP 33K METAL CHIP 100	5% 5%	1/16W 1/16W			< CONNECTOR	>		
110202	7 210 000	< TRANSFORMER >			T .	1-695-320-21 1-580-055-21	PIN, CONNECTO		SMD) 2P	
					CN7302	1-766-340-21	CONNECTOR, F	FC/FPC 10P		
<b>△</b> T5201	1-426-848-51	TRANSFORMER, INVERTER		13.0 [] []	1	1-766-335-21 1-779-337-11	CONNECTOR, F			
	A-7073-734-A	MA-333(D) BOARD COMPLET			CN7305	1-779-327-11	CONNECTOR, F	FC/FPC 6P		
		**************************************		00 Series)			< DIODE >			
		< CAPACITOR >			D7300	8-719-061-82	DIODE TLSU1		NY)	
07900	1-135-259-11	TANTAL. CHIP 10uF	20%	6.3V	D7304 D7305	8-719-064-61 8-719-420-14	DIODE 01BZA8			
C7300 C7301	1-162-966-11	CERAMIC CHIP 0.0022uF	10%	50V	D7000					
C7305 C7306	1-162-970-11 1-162-927-11	CERAMIC CHIP 0.01uF CERAMIC CHIP 100PF	10% 5%	25V 50V			< FERRITE BEA	D >		
C7306	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	FB730	1-500-444-11		JH		
					FB731	1-500-444-11	FERRITE OL			
					1 -	<b>Note:</b> The components		Note: Les composa	ants iden	tifiés par
					r	mark ∆ or dotted ∆ are critical for s	line with mark	une marque pour la sécuri		
					F	Replace only with specified.	part number	Ne les rempli pièce portant l	acer que	
				6-	18 L	promou.		piece poi laill	- number	opcome.

MA-333

PD-101

Part No.   Part No.   Description   Part No.   Circ   Part No.												
C7301 8-759-248-31 IC BR728/CV-22   C847.000 Sartes)	Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>
1.7300   8-759-834-51   10   MS22FP-E1		< IC >					A-7073-679-A	PD-101 BOARD,	COMPLETE			
C7302 8-759-833-55   C M5222P-E1									******			
C7303 8-759-111-58   C uPC457262-62	IC7301									(Ref	.No.:10,0	000 Series)
C7304 8-729-037-53 TRANSISTOR >   C5501 1-107-826-11 CERAMIC CHIP   0.1uF   10%   169									- CADACITOD -			
C5502   1-107-826-11   CERAMIC CHIP   0.1 LF   10%   16V	IC7303	8-759-111-56	IC uPC45/2G2	-E2					< CAPACITOR >			
C5502   1-107-826-11   CERAMIC CHIP   0.1 LF   10%   16V			~ TRANSISTOR	,			C5501	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5504   1-164-943-11   CERAMIC CHIP   0.01uF   10%   169			V 110/11/01/01/01/01/01/01/01/01/01/01/01/				l			0.1uF	10%	16V .
R7302   1-500-444-11   FERRITE   OUH   R7303   1-216-895-11   METAL CHIP   1K   5%   17/6W   C5505   1-107-826-11   CERAMIC CHIP   0.1 uF   10%   16W   R7305   1-216-837-11   METAL CHIP   22K   5%   17/6W   C5506   1-107-826-11   CERAMIC CHIP   0.1 uF   10%   16W   R7305   1-216-837-11   METAL CHIP   26   5%   17/6W   C5501   1-104-852-11   TANTAL CHIP   22UF   20%   10W   R7306   1-216-835-11   METAL CHIP   15K   5%   17/6W   C5510   1-104-852-11   TANTAL CHIP   22UF   20%   10W   R7310   1-216-835-11   METAL CHIP   36K   5%   17/6W   C5510   1-104-852-11   TANTAL CHIP   0.1 uF   10%   16W   R7311   1-216-835-11   METAL CHIP   36K   5%   17/6W   C5510   1-104-852-11   TANTAL CHIP   0.1 uF   10%   16W   R7312   1-216-835-11   METAL CHIP   36K   5%   17/6W   C5510   1-104-852-11   CERAMIC CHIP   0.1 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   22K   5%   17/6W   C5510   1-104-852-11   CERAMIC CHIP   0.3 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   2.2K   5%   17/6W   C5510   1-105-901-11   CERAMIC CHIP   0.3 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   6.6K   5%   17/6W   C5510   1-105-901-11   CERAMIC CHIP   0.3 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   6.6K   5%   17/6W   C5512   1-164-832-11   CERAMIC CHIP   0.3 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   16K   5%   17/6W   C5502   1-164-832-11   CERAMIC CHIP   0.3 uF   10%   16W   R7315   1-216-835-11   METAL CHIP   16K   5%   17/6W   C5502   1-164-832-11   CERAMIC CHIP   0.0 uF   16W   16W   C5502   1-164-832-11   CERAMIC CHIP   0.0 uF   16W   C5502   1-164-832-11   CERAMIC CHIP   0.0 uF   16W   C5502   1-164-832-11   CERAMIC CHIP   0.0 uF   16W   C5502   1-164-832	Q7304	8-729-037-53	TRANSISTOR	2SB1462J-0	QR(K8).SO		1					
R7302   1-500-44-11   FERRITE   OUH   R7303   1-218-905-11   METAL CHIP   47   5%   1/16W   C5507   1-104-782-11   TANTAL CHIP   0.1 uF   10%   6.3W   6.3												
R7303			< RESISTOR >				C5505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	167 .
R7303	D7202	1-500-444-11	FERRITE OI	!H			C5506	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
F7304   1-216-83-11   METAL CHIP   1K   5%   1/16W   C5510   1-104-85-11   TANTAL CHIP   3.34   20%   4V   4V   7308   1-216-835-11   METAL CHIP   6.8K   5%   1/16W   C5510   1-104-85-21   TANTAL CHIP   3.34   20%   4V   7308   1-216-835-11   METAL CHIP   6.8K   5%   1/16W   C5510   1-104-85-21   TANTAL CHIP   2.0%   10V   7310   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5511   1-104-85-21   TANTAL CHIP   2.0%   10V   7311   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5512   1-104-85-11   CERAMIC CHIP   0.134   10%   16V   7312   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5514   1-110-501-11   CERAMIC CHIP   0.334   10%   16V   7312   1-216-839-11   METAL CHIP   2.2K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.334   10%   16V   7313   1-216-835-11   METAL CHIP   2.2K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   0.334   10%   16V   7315   1-216-831-11   METAL CHIP   8.6K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   0.334   10%   16V   7315   1-216-831-11   METAL CHIP   16K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   0.334   10%   16V   7315   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2D   10%   16V   7315   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2D   10%   16V   7315   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.0D   16V   7315   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5502   1-113-951-11   CERAMIC CHIP   0.14F   10%   16V   7325   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5503   1-107-725-11   CERAMIC CHIP   0.14F   10%   16V   7325   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5503   1-107-826-11   CERAMIC CHIP   0.14F   10%   16V   10W					5%	1/16W	i .					6.3V
R7306   1-216-83-11   METAL CHIP   22K   5%   1/16W   C5500   1-135-221-11   TANTAL CHIP   3.3uF   29%   4V   R7301   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5511   1-104-851-11   TANTAL CHIP   10WF   20%   10V   R7310   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5513   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7312   1-216-835-11   METAL CHIP   18K   5%   1/16W   C5514   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7312   1-216-835-11   METAL CHIP   2.2K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7315   1-216-835-11   METAL CHIP   2.2K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7316   1-216-835-11   METAL CHIP   2.2K   5%   1/16W   C5517   1-107-826-11   CERAMIC CHIP   0.33uF   10%   16V   R7316   1-216-835-11   METAL CHIP   6.8K   5%   1/16W   C5517   1-107-826-11   CERAMIC CHIP   0.33uF   10%   16V   R7316   1-216-831-11   METAL CHIP   6.8K   5%   1/16W   C5517   1-107-826-11   CERAMIC CHIP   2.2PF   10%   16V   R7316   1-216-831-11   METAL CHIP   6.8K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7316   1-216-835-11   METAL CHIP   1K   5%   1/16W   C5502   1-164-933-11   CERAMIC CHIP   2.0PF   10%   16V   R7316   1-216-835-11   METAL CHIP   1K   5%   1/16W   C5504   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7320   1-216-839-11   METAL CHIP   1K   5%   1/16W   C5504   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-833-11   METAL CHIP   1K   5%   1/16W   C5504   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-833-11   METAL CHIP   15K   5%   1/16W   C5501   1-164-972-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-833-11   METAL CHIP   15K   5%   1/16W   C5501   1-164-972-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-833-11   METAL CHIP   15K   5%   1/16W   C5501   1-164-972-11   CERAMIC CHIP   0.1uF   10%   16V					5%	1/16W	C5508	1-107-826-11	CERAMIC CHIP	0.1uF	10%	
R7306   1-216-83-11   METAL CHIP   6.8K   5%   1/16W   C5512   1-104-85-11   TANTAL CHIP   2.0%   10V			METAL CHIP	22K	5%	1/16W	C5509	1-135-221-11	TANTAL, CHIP	3.3uF	20%	4V
R7310   1-218-839-11   METAL CHIP   15K   5%   1/16W   C5513   1-107-826-11   CERAMIC CHIP   0.33uF   10%   16V   R7311   1-218-839-11   METAL CHIP   10K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7313   1-218-825-11   METAL CHIP   2.2K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7313   1-218-825-11   METAL CHIP   2.5K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7316   1-218-831-11   METAL CHIP   6.8K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   2.20F   10%   16V   R7316   1-218-831-11   METAL CHIP   6.8K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   2.20F   10%   16V   R7316   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   2.20F   10%   16V   R7319   1-216-835-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   TANTAL CHIP   10UF   20%   20V   20	R7306	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	C5510	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
R7310   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5513   1-107-826-11   CERAMIC CHIP   0.33uF   10%   16V   R7311   1-216-839-11   METAL CHIP   10K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7313   1-216-825-11   METAL CHIP   2.2K   5%   1/16W   C5515   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   2.0PF   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   2.0PF   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   0.10F   10%   16V   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   10%   10%   C5513   1-107-826-11   CERAMIC CHIP   0.10F   10%   10%   C5513   1-107-826-11   CERAMIC CHIP   0.10F		1 010 005 11	NACTAL OLUD	451/	<b>F</b> 0/	4 (4 C) (4	05510	1 104 051 11	TANTAL CUID	10uE	20%	101/
R7311   -216-839-11   METAL CHIP   33K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33UF   10%   16V   R7312   1-216-825-11   METAL CHIP   2.2K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33UF   10%   16V   R7315   1-216-825-11   METAL CHIP   2.2K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33UF   10%   16V   R7315   1-216-831-11   METAL CHIP   2.2K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7317   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5521   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7317   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7317   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7318   1-216-833-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   TANTAL CHIP   10%   20V   20							1					
R7312   1-216-836-11   METAL CHIP   18K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7313   1-216-825-11   METAL CHIP   2.2K   5%   1/16W   C5516   1-110-501-11   CERAMIC CHIP   0.33uF   10%   16V   R7316   1-216-831-11   METAL CHIP   6.8K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   22DFF   10%   16V   R7316   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5521   1-164-933-11   CERAMIC CHIP   22DFF   10%   16V   R7317   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5521   1-164-933-11   CERAMIC CHIP   22DFF   10%   16V   R7318   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   CERAMIC CHIP   22DFF   10%   16V   R7320   1-216-835-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   TANTAL CHIP   10F   20%   20V   R7321   1-216-835-11   METAL CHIP   10K   5%   1/16W   C5603   1-107-225-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5603   1-107-225-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5603   1-162-996-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5603   1-162-996-11   CERAMIC CHIP   0.1uF   10%   16V   R7322   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5603   1-162-996-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5603   1-162-996-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   3K   5%   1/16W   C5613   1-164-004-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   3K   5%   1/16W   C5613   1-164-072-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   3K   5%   1/16W   C5613   1-164-072-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   2K   5%   1/16W   C5622   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-839-11   METAL CHIP   2K   5%   1/16W   C5622   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7325   1-216-839-							1					
R7313							E .					
R7314   1-216-825-11   METAL CHIP   2.2K   5%   1/16W   C5517   1-107-826-11   CERAMIC CHIP   2.2PF   10%   16V   R7316   1-216-831-11   METAL CHIP   6.8K   5%   1/16W   C5520   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7316   1-216-831-11   METAL CHIP   1K   5%   1/16W   C5521   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7317   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   R7318   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   2.2PF   10%   16V   C5622   1-13-985-11   TANTAL CHIP   10W   2.2W   2.2W   C5622   1-13-985-11   TANTAL CHIP   10W   2.2W   2.2W   C5622   1-13-985-11   TANTAL CHIP   10W   16V   C5622   1-13-985-11   CERAMIC CHIP   0.1W							1					
R7315	117010		INE IAE OIII			.,						
R7316   1-216-831-11   METAL CHIP   6.8K   5%   1/16W   C5522   1-164-933-11   CERAMIC CHIP   220PF   10%   16V   R7317   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5622   1-164-933-11   CERAMIC CHIP   220PF   10%   16V   R7318   1-216-835-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   TANTAL CHIP   10W   16V   R7320   1-216-829-11   METAL CHIP   10K   5%   1/16W   C5604   1-107-826-11   CERAMIC CHIP   0.1	R7314	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C5517	1-107-826-11	CERAMIC CHIP			
R7317   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5502   1-164-933-11   CERAMIC CHIP   220P   10%   16V   C5002   1-13-985-11   TANTAL CHIP   10W   20%   20V   C5002   1-13-985-11   TANTAL CHIP   10W   20%   20V   C5003   1-216-825-11   TANTAL CHIP   10W   16V   C5003   1-107-826-11   CERAMIC CHIP   0.1 uF   10%   16V   C5003   1-126-835-11   CERAMIC CHIP   0.1 uF   10%   12V   C5003   CERAMIC CHIP   0.1 uF	R7315	1-216-831-11	METAL CHIP '	6.8K		1/16W	i .					
R7318   1-216-821-11   METAL CHIP   1K   5%   1/16W   C5602   1-113-985-11   TANTAL CHIP   10uF   20%   20V	R7316	1-216-831-11										
R7319	R7317											
R7320   1-216-829-11   METAL CHIP   4,7K   5%   1/16W   C5604   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7321   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5605   1-164-04-11   CERAMIC CHIP   0.1uF   10%   16V   R7324   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5608   1-162-964-11   CERAMIC CHIP   0.01uF   10%   25V   R7324   1-216-835-11   METAL CHIP   10K   5%   1/16W   C5608   1-162-964-11   CERAMIC CHIP   0.001uF   10%   50V   R7326   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5611   1-164-872-11   CERAMIC CHIP   0.1uF   10%   25V   R7321   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5612   1-164-872-11   CERAMIC CHIP   82PF   5%   16V   R7322   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5613   1-164-739-11   CERAMIC CHIP   82PF   5%   16V   R7342   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5616   1-109-982-11   CERAMIC CHIP   82PF   5%   50V   R7342   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5618   1-104-916-11   TANTAL CHIP   10%   10V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5619   1-162-970-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7351   1-216-839-11   METAL CHIP   20K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7351   1-216-839-11   METAL CHIP   20K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7353   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7351   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   0%   25V   R7351   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5703   1-164-601-11   CERAMIC CHIP   0.1uF   0%   25V   CERAMIC CHIP   0.1uF	R7318	1-216-821-11	METAL CHIP	1K	5%	. 1/16W	C5602	1-113-985-11	IANTAL, CHIP	10ur	20%	207
R7320   1-216-829-11   METAL CHIP   4,7K   5%   1/16W   C5604   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7321   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5605   1-164-04-11   CERAMIC CHIP   0.1uF   10%   16V   R7324   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5608   1-162-964-11   CERAMIC CHIP   0.01uF   10%   25V   R7324   1-216-835-11   METAL CHIP   10K   5%   1/16W   C5608   1-162-964-11   CERAMIC CHIP   0.001uF   10%   50V   R7326   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5611   1-164-872-11   CERAMIC CHIP   0.1uF   10%   25V   R7321   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5612   1-164-872-11   CERAMIC CHIP   82PF   5%   16V   R7322   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5613   1-164-739-11   CERAMIC CHIP   82PF   5%   16V   R7342   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5616   1-109-982-11   CERAMIC CHIP   82PF   5%   50V   R7342   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5618   1-104-916-11   TANTAL CHIP   10%   10V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5619   1-162-970-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7345   1-216-839-11   METAL CHIP   33K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.01uF   10%   25V   R7351   1-216-839-11   METAL CHIP   20K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7351   1-216-839-11   METAL CHIP   20K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7353   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7351   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   0%   25V   R7351   1-216-833-11   METAL CHIP   0K   5%   1/16W   C5703   1-164-601-11   CERAMIC CHIP   0.1uF   0%   25V   CERAMIC CHIP   0.1uF	D7210	1 216-835-11	METAL CHID	15K	5%	1/16W/	C5603	1-107-725-11	CERAMIC CHIP	0.1uE	10%	16V
R7322   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5605   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   R7324   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5607   1-164-004-11   CERAMIC CHIP   0.001uF   10%   50V   C502   C5605   1-107-826-11   CERAMIC CHIP   0.1uF   10%   25V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   50V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   50V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   50V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   25V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   10V   C5605   1-164-872-11   CERAMIC CHIP   0.001uF   10%   25V   C5605   1-164-801   1-1							1					
R7322   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5607   1-164-004-11   CERAMIC CHIP   0.001uF   10%   25V							1					16V
R7324   1-216-835-11   METAL CHIP   15K   5%   1/16W   C5608   1-162-964-11   CERAMIC CHIP   0.001uF   10%   50V							1		CERAMIC CHIP	0.1uF		25V
R7327   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5611   1-164-004-11   CERAMIC CHIP   0.1 uF   10%   25V   R7328   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5612   1-164-872-11   CERAMIC CHIP   82PF   5%   16V   R7331   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5613   1-164-739-11   CERAMIC CHIP   560PF   5%   50V   C5613   1-164-879-11   CERAMIC CHIP   10%   10V   C5613   1-164-879-11   CERAMIC CHIP   10%   10V   C5614   1-109-982-11   CERAMIC CHIP   10%   10V   C5614   1-109-982-11   CERAMIC CHIP   10%   10V   C5614   1-162-970-11   CERAMIC CHIP   10%   10V   C5614   1-162-970-11   CERAMIC CHIP   0.1 uF   10%   16V   C5614   1-162-970-11   CERAMIC CHIP   0.1 uF   10%   16V   C5624   1-164-943-11   CERAMIC CHIP   0.1 uF   10%   16V   C5624   1-164-004-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   10V   C5704   1-164-004-11   CERAMIC CHIP   0.						1/16W	C5608	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R7327   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5611   1-164-004-11   CERAMIC CHIP   0.1 uF   10%   25V   R7328   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5612   1-164-872-11   CERAMIC CHIP   82PF   5%   16V   R7331   1-216-839-11   METAL CHIP   15K   5%   1/16W   C5613   1-164-739-11   CERAMIC CHIP   560PF   5%   50V   C5613   1-164-879-11   CERAMIC CHIP   10%   10V   C5613   1-164-879-11   CERAMIC CHIP   10%   10V   C5614   1-109-982-11   CERAMIC CHIP   10%   10V   C5614   1-109-982-11   CERAMIC CHIP   10%   10V   C5614   1-162-970-11   CERAMIC CHIP   10%   10V   C5614   1-162-970-11   CERAMIC CHIP   0.1 uF   10%   16V   C5614   1-162-970-11   CERAMIC CHIP   0.1 uF   10%   16V   C5624   1-164-943-11   CERAMIC CHIP   0.1 uF   10%   16V   C5624   1-164-004-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   16V   C5704   1-164-661-11   CERAMIC CHIP   0.1 uF   10%   10V   C5704   1-164-004-11   CERAMIC CHIP   0.							25010	1 101 070 11	050 11110 01110	0005	F0/	401/
R7328 1-216-839-11 METAL CHIP 15K 5% 1/16W C5613 1-164-872-11 CERAMIC CHIP 560PF 5% 50V C5613 1-164-739-11 CERAMIC CHIP 560PF 5% 50V C5616 1-109-982-11 CERAMIC CHIP 1uF 10% 10V C5619 1-162-970-11 CERAMIC CHIP 1uF 10% 15V C5619 1-162-970-11 CERAMIC CHIP 1uF 10% 16V C5620 1-107-826-11 CERAMIC CHIP 1uF 10% 16V C5621 1-113-985-11 TANTAL CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V C5701 1-113-991-11 TANTAL CHIP 3uF 20% 16V C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V C5704 1-164-604-11 CERAMIC CHIP 1uF 10% 10V C5704 1-164-004-11 CERAMIC CHIP 1uF 10% 10V C5704 1-164-004-11 CERAMIC CHIP 1uF 10% 10V C5704 1-164-004-11 CERAMIC CHIP 1uF 10% 50V C5704 1-164-004-11 CERAMIC CHIP 1uF 10% 10V C5704 1-164-004-11 CER							1					
R7331 1-216-839-11 METAL CHIP 33K 5% 1/16W C5618 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7342 1-216-829-11 METAL CHIP 33K 5% 1/16W C5616 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7344 1-216-839-11 METAL CHIP 33K 5% 1/16W C5619 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V  R7345 1-216-839-11 METAL CHIP 12K 5% 1/16W C5620 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V  R7347 1-216-839-11 METAL CHIP 560 5% 1/16W C5621 1-113-985-11 TANTAL. CHIP 1uF 10% 16V  R7348 1-216-839-11 METAL CHIP 560 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V  R7350 1-216-837-11 METAL CHIP 22K 5% 1/16W C5701 1-131-991-11 TANTAL. CHIP 1uF 10% 16V  R7351 1-216-839-11 METAL CHIP 10K 5% 1/16W C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7355 1-216-837-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 1uF 10% 10V  R7357 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.01uF 10% 25V  R7358 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.01uF 10% 25V  R7357 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.01uF 10% 25V  R7358 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.01uF 10% 25V  R7359 1-216-837-11 METAL CHIP 1K 5% 1/16W C5704 1-164-943-11 CERAMIC CHIP 0.01uF 10% 25V  R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V  R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR, FFC/FPC C4P  R7361 1-216-841-11 METAL CHIP 330 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 12P  R7361 1-216-848-11 METAL CHIP 380 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P							1					
R7332 1-216-839-11 METAL CHIP 33K 5% 1/16W C5616 1-109-882-11 CERAMIC CHIP 1uF 10% 10V  R7342 1-216-829-11 METAL CHIP 4.7K 5% 1/16W C5619 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V  R7344 1-216-839-11 METAL CHIP 12K 5% 1/16W C5620 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V  R7347 1-216-839-11 METAL CHIP 33K 5% 1/16W C5620 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V  R7348 1-216-839-11 METAL CHIP 560 5% 1/16W C5621 1-113-985-11 TANTAL. CHIP 10uF 20% 20V  R7348 1-216-818-11 METAL CHIP 560 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V  R7350 1-216-837-11 METAL CHIP 22K 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V  R7351 1-216-849-11 METAL CHIP 22K 5% 1/16W C5701 1-113-991-11 TANTAL. CHIP 33uF 20% 16V  R7352 1-216-833-11 METAL CHIP 10K 5% 1/16W C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5703 1-164-661-11 CERAMIC CHIP 0.018uF 10% 50V  R7354 1-216-845-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.018uF 10% 50V  R7355 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.018uF 10% 50V  R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W C5706 1-164-004-11 CERAMIC CHIP 0.01uF 10% 25V  R7357 1-216-837-11 METAL CHIP 22K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 25V  R7358 1-216-837-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 25V  R7359 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V  R7359 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V  R7360 1-216-841-11 METAL CHIP 1K 5% 1/16W C5701 1-764-709-11 CONNECTOR, FFC/FPC 24P CN5701 1-764-709-11 CONNECTOR, FFC/FPC CLIF) 10P CN5701 1-764-709-11 CONNECTOR, FFC/FPC CLIF) 10P CN5701 1-764-709-11 PIN, CONNECTOR (PC BOARD) 13P							1					
R7342 1-216-829-11 METAL CHIP 4.7K 5% 1/16W C5619 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V R7345 1-216-839-11 METAL CHIP 33K 5% 1/16W C5620 1-107-826-11 CERAMIC CHIP 0.1uF 10% 16V R7347 1-216-839-11 METAL CHIP 560 5% 1/16W C5621 1-113-985-11 TANTAL. CHIP 10µF 20% 20V R7348 1-216-818-11 METAL CHIP 560 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V R7350 1-216-839-11 METAL CHIP 22K 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V R7351 1-216-849-11 METAL CHIP 22K 5% 1/16W C5701 1-113-991-11 TANTAL. CHIP 33µF 20% 16V R7351 1-216-833-11 METAL CHIP 10K 5% 1/16W C5701 1-13-991-11 TANTAL. CHIP 33µF 20% 16V R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5702 1-109-982-11 CERAMIC CHIP 0.1uF 10% 10V R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5703 1-164-661-11 CERAMIC CHIP 0.018µF 10% 50V R7351 1-216-845-11 METAL CHIP 100K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 50V R7351 1-216-845-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 50V R7351 1-216-845-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.1uF 10% 25V R7356 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V R7359 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V R7359 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V R7356 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V R7361 1-216-841-11 METAL CHIP 330 5% 1/16W CN5601 1-573-364-11 CONNECTOR, FFC/FPC 24P CN5701 1-764-709-11 CONNECTOR, FFC/FPC CUF 10P R7361 1-216-848-11 METAL CHIP 330 5% 1/16W CN5602 1-779-064-11 PIN, CONNECTOR (PC BOARD) 13P R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P							5					
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R7345   1-216-834-11   METAL CHIP   12K   5%   1/16W   C5620   1-107-826-11   CERAMIC CHIP   0.1uF   10%   16V   R7347   1-216-839-11   METAL CHIP   560   5%   1/16W   C5621   1-113-985-11   TANTAL. CHIP   10wF   20%   20V   R7348   1-216-848-11   METAL CHIP   22K   5%   1/16W   C5622   1-107-682-11   CERAMIC CHIP   1uF   10%   16V   R7352   1-216-849-11   METAL CHIP   22K   5%   1/16W   C5701   1-113-991-11   TANTAL. CHIP   33uF   20%   16V   R7353   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5702   1-109-982-11   CERAMIC CHIP   1uF   10%   10V   R7353   1-216-833-11   METAL CHIP   10K   5%   1/16W   C5703   1-164-661-11   CERAMIC CHIP   0.1uF   10%   50V   C5704   1-164-004-11   CERAMIC CHIP   0.1uF   10%   10%   10%   C5704   1-164-004-11   CERAMIC CHIP   0.1uF   10%   C5704   1-164-004-11   CERAMIC CHIP   0.1uF   10%   C5704   1-164-004-11   CERAMIC CHIP   0.1uF   10%   C5704   1-164-004-11   CERAMIC	R7342	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C5618	1-104-916-11	TANTAL. CHIP	6.8uF	20%	20V
R7347 1-216-839-11 METAL CHIP 560 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V  R7348 1-216-818-11 METAL CHIP 560 5% 1/16W C5622 1-107-682-11 CERAMIC CHIP 1uF 10% 16V  R7350 1-216-837-11 METAL CHIP 22K 5% 1/16W C5701 1-113-991-11 TANTAL. CHIP 33uF 20% 16V  R7351 1-216-833-11 METAL CHIP 10K 5% 1/16W C5702 1-109-982-11 CERAMIC CHIP 1uF 10% 10V  R7352 1-216-833-11 METAL CHIP 10K 5% 1/16W C5703 1-164-661-11 CERAMIC CHIP 1uF 10% 50V  R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 50V  R7355 1-216-837-11 METAL CHIP 10K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V  R7355 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V  R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V  R7357 1-216-821-11 METAL CHIP 22K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V  R7358 1-216-841-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V  R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W CN5701 1-764-709-11 CONNECTOR, FFC/FPC 24P  R7360 1-216-845-11 METAL CHIP 330 5% 1/16W CN5701 1-764-709-11 CONNECTOR, FFC/FPC 24P  R7361 1-216-848-11 METAL CHIP 330 5% 1/16W CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P  R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P	R7344	1-216-839-11	METAL CHIP	33K	5%		C5619					
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R7353 1-216-833-11 METAL CHIP 10K 5% 1/16W C5703 1-164-661-11 CERAMIC CHIP 0.018uF 10% 25V C5704 1-216-845-11 METAL CHIP 100K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 0.1uF 10% 25V C5704 1-216-837-11 METAL CHIP 22K 5% 1/16W C5704 1-164-004-11 CERAMIC CHIP 12PF 10% 3KV C5705 1-216-837-11 METAL CHIP 22K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 12PF 10% 3KV C5705 1-216-821-11 METAL CHIP 1K 5% 1/16W C5706 1-164-943-11 CERAMIC CHIP 0.01uF 10% 16V C							1					10V
R7354 1-216-845-11 METAL CHIP 100K 5% 1/16W R7355 1-216-837-11 METAL CHIP 22K 5% 1/16W R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W R7357 1-216-821-11 METAL CHIP 1K 5% 1/16W R7358 1-216-821-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W R7361 1-216-845-11 METAL CHIP 330 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7364 1-216-848-11 METAL CHIP 180K 5% 1/16W R7365 1-216-848-11 METAL CHIP 180K 5% 1/16W R7366 1-216-848-11 METAL CHIP 180K 5% 1/16W R7367 1-216-848-11 METAL CHIP 180K 5% 1/16W R7368 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7360 1-216-848-11 METAL CHIP 180K 5% 1/16W R7361 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7361 1-216-848-11 METAL CHIP 180K 5% 1/16W R7361 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7364 1-216-848-11 METAL CHIP 180K 5% 1/16W R7365 1-216-848-11 METAL CHIP 180K 5% 1/16W R7367 1-216-848-11 METAL CHIP 180K 5% 1/16W R7368 1-216-848-11 METAL CHIP 180K 5% 1/16W							C5703	1-164-661-11	CERAMIC CHIP	0.018uF	10%	50V
R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W R7357 1-216-821-11 METAL CHIP 1K 5% 1/16W R7358 1-216-821-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W R7361 1-216-815-11 METAL CHIP 330 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7364 1-216-848-11 METAL CHIP 180K 5% 1/16W R7365 1-216-848-11 METAL CHIP 180K 5% 1/16W R7366 1-216-848-11 METAL CHIP 180K 5% 1/16W R7367 1-216-848-11 METAL CHIP 180K 5% 1/16W R7368 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W				100K	5%	1/16W	C5704	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
R7356 1-216-837-11 METAL CHIP 22K 5% 1/16W R7357 1-216-821-11 METAL CHIP 1K 5% 1/16W R7358 1-216-821-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W R7361 1-216-815-11 METAL CHIP 330 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W R7364 1-216-848-11 METAL CHIP 180K 5% 1/16W R7365 1-216-848-11 METAL CHIP 180K 5% 1/16W R7366 1-216-848-11 METAL CHIP 180K 5% 1/16W R7367 1-216-848-11 METAL CHIP 180K 5% 1/16W R7368 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W R7369 1-216-848-11 METAL CHIP 180K 5% 1/16W			******	0011	<b>F</b> 0/	4 (4 (0) 4 )	A 05705	4 440 204 44	OFFIANCE OF THE	1005	100/	21/1
R7357 1-216-821-11 METAL CHIP 1K 5% 1/16W R7358 1-216-821-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7361 1-216-815-11 METAL CHIP 330 5% 1/16W CN5701 1-764-709-11 CONNECTOR, FFC/FPC 24P CN5701 1-764-709-11 CONNECTOR, FFC/FPC (LIF) 10P CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P CN5803 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P							1					
R7358 1-216-821-11 METAL CHIP 1K 5% 1/16W R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7361 1-216-845-11 METAL CHIP 47K 5% 1/16W R7363 1-216-848-11 METAL CHIP 330 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5802 1-779-064-11 PIN, CONNECTOR, FFC/FPC (LIF) 10P CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P							05/06	1-104-940-11	JENAWIO UNIP	U.UTUF	10 /0	10A
R7359 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W  R7361 1-216-845-11 METAL CHIP 47K 5% 1/16W  R7361 1-216-815-11 METAL CHIP 330 5% 1/16W  R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W  CN5601 1-573-364-11 CONNECTOR, FFC/FPC 24P  CN5701 1-764-709-11 CONNECTOR, FFC/FPC (LIF) 10P  CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P  CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P								•	< CONNECTOR >	•		
CN5601 1-573-364-11 CONNECTOR, FFC/FPC 24P R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W R7361 1-216-815-11 METAL CHIP 330 5% 1/16W R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P									/ COMMENTOLOUS			
R7360 1-216-841-11 METAL CHIP 47K 5% 1/16W CN5701 1-764-709-11 CONNECTOR, FFC/FPC (LIF) 10P R7361 1-216-815-11 METAL CHIP 330 5% 1/16W CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P	กางอช	1210-041-11	WE I'VE OTH	1110	270	.,	CN5601	1-573-364-11	CONNECTOR, FF	C/FPG 24P		
R7361 1-216-815-11 METAL CHIP 330 5% 1/16W CN5802 1-779-064-11 PIN, CONNECTOR (PC BOARD) 12P R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P	R7360	1-216-841-11	METAL CHIP	47K	5%	1/16W			,		10P	
R7363 1-216-848-11 METAL CHIP 180K 5% 1/16W CN5803 1-779-065-11 PIN, CONNECTOR (PC BOARD) 13P							CN5802	1-779-064-11	The second secon		,	
CN5805 1-573-346-21 CONNECTOR, FFC/FPC 6P				180K	5%	1/16W			•	•	(D) 13P	
							CN5805	1-573-346-21	CONNECTOR, FF	C/FPC 6P		

Note:
The components identified by mark ♠ or dotted line with mark ♠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ∆ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

# PD-101

Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>	Ref. No.	Part No.	Description				Remarks
		< DIODE >				R5607	1-218-990-11	SHORT	0			
	·					R5608		SHORT	0	1001/	<b>F</b> 0/	4 /4 (0) (4)
D5602	8-713-102-80	DIODE 1T369-0 DIODE MA8047				R5610 R5614	1-218-977-11 1-218-987-11	RES,CHIP		100K 680K	5% 5%	1/16W 1/16W
D5604 ▲ D5704		DIODE MA111-				R5615				180K	5%	1/16W
D5801		DIODE 01ZA8.2				110010	. 210 000 11				• , ,	,,,,,,
D5802		DIODE 01ZA8.2				R5620				10K	5%	1/16W
						R5621	1-218-989-11			1 M	5%	1/16W
		< 1C >				R5622 R5623				1M 68K	5% 5%	1/16W 1/16W
IC5501	8-759-364-05	IC M62376GP-	65AD			R5624				22K	5%	1/16W
105501 105501		IC MB40D001F		ER .		11002.	; = ; = ; = ;				- /-	
IC5502	8-759-539 <b>-</b> 27	IC IR3Y37A4				R5627				47K	0.50%	1/16W
IC5601		IC LZ9GH204				R5628			0	001/	E0/	4 /4 (2) (4)
IC5602	8-759-327-01	IC NJM062V(T	E2)			R5629 R5630				68K 47K	5% 5%	1/16W 1/16W
IC5701	8-759-075-70	IC TA75S393F-	TE85R			R5634				4.7K	5%	1/16W
100701	0 700 070 10							,				
		< COIL >				R5640				100K	0.50%	1/16W
1 == 00	- 44 A 75 A 44	INDUCTOR 10.	.11			R5641 R5643				33K 56K	0.50% 5%	1/16W 1/16W
L5500 L5501	1-414-754-11	INDUCTOR 10u INDUCTOR 47u				R5644				33K	5%	1/16W
L5501	1-414-754-11					R5649			0		0 / 0	1,1011
L5503	1-414-754-11											
L5603	1-414-754-11	INDUCTOR 10u	ıH			R5651	1-208-719-11			33K		1/16W
		INDUCTOR 40				R5652				22K		1/16W
L5604	1-414-754-11 1-412-945-11					R5653 R5654				39K 33K		1/16W 1/16W
L5605 L5701	1-412-945-11					R5657		•	0	0011	0.0070	171011
L0701 .	, 410 000 11	Meddidit 188	, (1)			"						
		< TRANSISTOR	>			R5658			0			
				D.((40) 00		R5659			0			
Q5605		TRANSISTOR :				R5660 R5661	1-218-990-11 1-218-990-11		0			
Q5606 Q5607		TRANSISTOR :				R5669			0			
Q5608		TRANSISTOR										
<b>▲ Q5701</b>	8-729-039-43					R5670			0			
		TD 4 NO 10 TO D		0) 00		R5671	1-218-990-11		0			
Q5702	8-729-042-59	TRANSISTOR	UN9112J-(K	8).50		R5674 R5676		SHORT	0			
		< RESISTOR >				R5679			Ü	47	5%	1/16W
R5500	1-218-990-11			<b>5</b> 0/	4.40041	R5680				47	5%	1/16W
R5501 R5505	1-218-972-11 1-218-973-11	RES,CHIP RES,CHIP	39K 47K	5% 5%	1/16W 1/16W	R5681 R5685	1-218-937-11 1-218-973-11	RES,CHIP RES,CHIP		47 47K	5% 5%	1/16W 1/16W
R5508	1-208-719-11	RES,CHIP	33K	0.50%	1/16W	R5686	1-218-973-11	RES,CHIP		47K	5%	1/16W
R5509	1-208-711-11		15K	0.50%	1/16W	R5687	1-218-961-11	RES,CHIP		4.7K	5%	1/16W
R5510	1-218-969-11	RES,CHIP	22K	5%	1/16W	R5688	1-216-864-11	METAL CHIP SHORT	0	0	5%	1/16W
R5511 R5512	1-218-966-11 1-218-969-11	RES,CHIP RES,CHIP	12K 22K	5% 5%	1/16W 1/16W	R5695 R5699	1-218-990-11 1-218-969-11	RES,CHIP	Ū	22K	5%	1/16W
R5513	1-218-966-11	RES,CHIP	12K	5%	1/16W	R5703	1-216-055-00	METAL CHIP		1.8K	5%	1/10W
R5514	1-218-965-11	RES,CHIP	10K	5%	1/16W	R5704	1-216-055-00	METAL CHIP		1.8K	5%	1/10W
			0014	<b>F</b> 0/	4 (4 (3) ).	D5705	4 040 077 44	DEC OLUB		1001/	<b>E</b> 0/	4 /4 (3)//
R5515	1-218-972-11	RES,CHIP RES,CHIP	39K 22K	5% 5%	1/16W 1/16W	R5705 R5706	1-218-977-11 1-218-963-11	RES,CHIP RES,CHIP		100K 6.8K	5% 5%	1/16W 1/16W
R5516 R5517	1-218-969-11 1-218-967-11	•	15K	5% 5%	1/16W	R5700	1-218-969-11	RES,CHIP		22K	5%	1/16W
R5518	1-218-971-11	RES,CHIP	33K	5%	1/16W	R5708	1-218-942-11	RES,CHIP		120	5%	1/16W
R5520	1-218-984-11	RES,CHIP	390K	5%	1/16W	R5709	1-218-949-11	RES,CHIP		470	5%	1/16W
				. = = = :	4.4.0344	DE740	1 010 000 11	QUODT	_			
R5521	1-208-709-11	RES,CHIP	12K	0.50% 0.50%	1/16W 1/16W	R5710 R5801	1-218-990-11 1-218-954-11	SHORT RES,CHIP	0	1.2K	5%	1/16W
R5522 R5528	1-208-721-11 1-218-977-11	RES,CHIP RES,CHIP	39K 100K	0.50% 5%	1/16W	R5802	1-218-955-11	RES,CHIP		1.2K 1.5K	5%	1/16W
R5532	1-218-990-11	SHORT 0	. 5011			R5803	1-218-959-11	RES,CHIP		3.3K	5%	1/16W
R5540	1-218-941-11	RES,CHIP	100	5%	1/16W	R5804	1-218-963-11	RES,CHIP		6.8K	5%	1/16W
B	4 040 044 44	DEC OUID	100	E0/	4/46/4/							
R5541 R5542	1-218-941-11 1-218-941-11	RES,CHIP RES,CHIP	100 100	5% 5%	1/16W 1/16W							
R5601	1-218-990-11	SHORT 0	100	J /0	171000	_			T -			
R5603	1-218-990-11	SHORT 0					Note: The components	identified by	1	l <b>ote :</b> es composa	ants ident	ifiés nar
R5604	1-218-990-11	SHORT 0					mark △ or dotted	line with mark	u	ne marque	⚠ sont	
							$\Delta$ are critical for	safety.	p	our la sécur	ité.	

pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

					RI-10 S	E-75	VC	-208
Ref. No.	Part No.	Description Remarks	Ref. No.	Part No.	Description			<u>Remarks</u>
R5805	1-218-965-11	RES,CHIP 10K 5% 1/16W	C212	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
R5807	1-218-990-11	SHORT 0	C213	1-125-777-11	CERAMIC CHIP	0.1uF	10%	. 10V
		< TRANSFORMER >	C214 C215	1-125-777-11 1-125-777-11	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.1uF	10% 10%	10V 10V
		C ITANOI OTWIET?	C217	1-125-777-11		0.1uF	10%	10V
<b>△</b> T5701	1-431-754-21	TRANSFORMER, INVERTER	C218	1-107-820-11	CERAMIC CHIP	0.1uF		16V
			C218	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	A-7073-735-A	RI-10(D) BOARD, COMPLETE	C220	1-125-777-11		0.1uF	10%	10V
		**************************************	C221 C222	1-125-777-11 1-113-988-11	CERAMIC CHIP TANTAL. CHIP	0.1uF 68uF	10% 20%	10V 4V
		(Ref.No.:10,000 Series)	0222	1-110-900-11	IANTAL. OTTE	ooui	20 /0	-7 V
*	3-052-742-01	HOLDER, LED	C227	1-115-156-11	CERAMIC CHIP	1uF		10V
	3-977-676-01	HOLDER, LED	C228 C229	1-164-850-11 1-164-937-11	CERAMIC CHIP CERAMIC CHIP	10PF 0.001uF	0.5PF 10%	16V 16V
		< CONNECTOR >	C230	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
		( 00,000,000,000,000,000,000,000,000,000	C231	1-164-846-11	CERAMIC CHIP	6PF	0.5PF	. 16V
CN7401	1-750-333-11	CONNECTOR, FFC/FPC (ZIF) 6P	C232	1-107-820-11	CERAMIC CHIP	0.1uF		16V
		< DIODE >	C233	1-135-201-11	TANTALUM CHIP		20%	4V
			C234	1-104-847-11	TANTAL, CHIP	22uF	20%	4V
D7401	8-719-404-49	DIODE MA111-TX	C235 C236	1-107-820-11 1-135-201-11	CERAMIC CHIP TANTALUM CHIP	0.1uF 10uF	20%	16V 4V
		<10>	0230	1-100-201-11	TAINTALOW OTH	Toui	2070	7.0
			C237	1-115-156-11		1uF	0 FDF	10V
IC7401	8-749-013-13	IC RS-70-TU	C238 C239	1-164-850-11 1-164-850-11		10PF 10PF	0.5PF 0.5PF	16V 16V
			C240	1-164-346-11		1uF	0.011	16V
	A-7073-675-A	SE-75 BOARD, COMPLETE	C247	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
	,	**************************************	C248	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		(1181.14010,000 001103)	C249	1-163-021-91		0.01uF	10%	50V
		< CAPACITOR >	C250	1-164-850-11		10PF	0.5PF	16V
CAEO	1-164-360-11	CERAMIC CHIP 0.1uF 16V	C252 C253	1-115-156-11 1-115-156-11		1uF 1uF		10V 10V
C450 C451	1-135-201-11		0200	1 110 100 11		,		
			C254	1-115-156-11		1uF	20%	10V 4V
		< CONNECTOR >	C255 C256	1-135-201-11 1-135-201-11	TANTALUM CHIP		20%	4V 4V
CN450	1-774-631-21	CONNECTOR, FFC/FPC 6P	C257	1-135-201-11			20%	4V
			C258	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
		< COIL >	C259	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
L450	1-414-754-11	INDUCTOR 10uH	C260	1-135-201-11		10uF	20%	4V
			C262	1-104-852-11		22uF	20%	10V 16V
		< SENSOR >	C300 C301	1-107-820-11 1-107-820-11		0.1uF 0.1uF		16V
SE450	1-803-042-31							
SE451	1-803-042-41		C302	1-107-820-11		0.1uF	20%	16V 4V
عد أنه دوريز فيد المدان	garant myani ya makamatan m	and the state of t	C303 C305	1-135-201-11 1-125-777-11		0.1uF	10%	10V
	A-7093-974-A	VC-208 BOARD, COMPLETE	C306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		*******	C307	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

	A-7073-075-A	**********				0241	, 100 02 . 0 .				
				ef No ·10 í	000 Series)	C248	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
			(11	01.14010,	300 001100)	C249	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		< CAPACITOR >				C250	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
		COALACITOR >				C252	1-115-156-11	CERAMIC CHIP	1uF		10V
C450	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C253	1-115-156-11	CERAMIC CHIP	1uF		10V
	1-135-201-11	TANTALUM CHIP		20%	4V	0200	1 110 100 11	02/0/00/00	,		
C451	1-130-201-11	TANTALOW GITT	1001	2070	70	C254	1-115-156-11	CERAMIC CHIP	1uF		10V
		< CONNECTOR >				C255	1-135-201-11	TANTALUM CHIP		20%	4V
		< GOIVINEOTOTI >				C256	1-135-201-11	TANTALUM CHIP		20%	4V
001450	4 774 004 04	CONNECTOR, FFO	C/EDC GD			C257	1-135-201-11	TANTALUM CHIP		20%	4V
CN450	1-774-631-21	CONNECTOR, FF	U/FF 0F			C258	1-135-201-11	TANTALUM CHIP		20%	4V
		< COIL >				0230	1-100-201-11	IAMIALOW OTH	1 Oui	2070	
		< GUIL >				C259	1-135-201-11	TANTALUM CHIF	10uF	20%	4V
	4 44 4 75 4 4 4	INDUCTOR 10uH				C260	1-135-201-11	TANTALUM CHIP		20%	4V
L450	1-414-754-11	INDOCTOR TORK	1			C262	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
		CENCOD				C300	1-107-820-11	CERAMIC CHIP	0.1uF	2070	16V
		< SENSOR >				C301	1-107-820-11	CERAMIC CHIP	0.1uF		16V
0= 1=0	1 000 010 01	OFNOOD ANOU	AD VELOC	NITY (MAIA)	`	0301	1-107-020-11	GERAWIO OTTI	o. rui		100
SE450	1-803-042-31	SENSOR, ANGUL			,	C302	1-107-820-11	CERAMIC CHIP	0.1uF		16V
SE451	1-803-042-41			``		C303	1-135-201-11	TANTALUM CHIF		20%	4V
	and the second second second second										
						C305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		VC-208 BOARD,	COMPLET	Ē	enge min in ennegge men	C305 C306	1-125-777-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF	10% 10%	10V 16V
			COMPLET	E *		C305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		VC-208 BOARD,	COMPLET	E *	000 Series)	C305 C306 C307	1-125-777-11 1-164-943-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF	10% 10% 10%	10V 16V 16V
		VC-208 BOARD, ********	COMPLET	E *		C305 C306 C307	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11	CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP	0.1uF 0.01uF 0.01uF 22uF	10% 10%	10V 16V 16V 4V
		VC-208 BOARD,	COMPLET	E *		C305 C306 C307 C308 C309	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF	10% 10% 10%	10V 16V 16V 4V 16V
	A-7093-974-A	VC-208 BOARD, ************************************	COMPLET ******** (R	E * ef.No.:10,	000 Series)	C305 C306 C307 C308 C309 C310	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF	10% 10% 10% 20%	10V 16V 16V 4V 16V 16V
C201	A-7093-974-A 1-107-682-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP	COMPLET ******** (R	E * ef.No.:10, 10%	000 Series) 16V	C305 C306 C307 C308 C309 C310 C311	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF 0.1uF	10% 10% 10% 20%	10V 16V 16V 4V 16V 16V 16V
C201 C202	A-7093-974-A 1-107-682-11 1-107-682-11	VC-208 BOARD, ************************************	COMPLET ********* (R 1uF 1uF	E ef.No.:10, 10% 10%	000 Series) 16V 16V	C305 C306 C307 C308 C309 C310	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF	10% 10% 10% 20%	10V 16V 16V 4V 16V 16V
C201 C202 C203	A-7093-974-A 1-107-682-11 1-107-682-11 1-107-682-11	VC-208 BOARD, ************  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********** (R 1uF 1uF 1uF	E ef.No.:10, 10% 10% 10%	000 Series) 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF 0.1uF 0.01uF 0.33uF	10% 10% 10% 20%	10V 16V 16V 4V 16V 16V 16V
C201 C202 C203 C204	A-7093-974-A 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET *********** (R 1uF 1uF 1uF 1uF	E ef.No.:10, 10% 10% 10% 10%	000 Series) 16V 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF 0.1uF 0.01uF 0.33uF	10% 10% 10% 20% 10% 10%	10V 16V 16V 4V 16V 16V 16V 16V
C201 C202 C203	A-7093-974-A 1-107-682-11 1-107-682-11 1-107-682-11	VC-208 BOARD, ************  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********** (R 1uF 1uF 1uF	E ef.No.:10, 10% 10% 10%	000 Series) 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351 C353	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 22uF 0.1uF 0.1uF 0.01uF 0.33uF	10% 10% 10% 20% 10% 10% 10%	10V 16V 16V 4V 16V 16V 16V 16V 16V
C201 C202 C203 C204 C205	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11	VC-208 BOARD, **********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ******** (R  1uF 1uF 1uF 1uF 1uF	E ef.No.:10,  10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.3uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V
C201 C202 C203 C204 C205	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********* (R  1uF 1uF 1uF 1uF 1uF 1uF	E ef.No.:10,  10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11 1-135-259-11	CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.33uF 0.1uF 0.1uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V 16V 6.3V
C201 C202 C203 C204 C205 C206 C207	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********* (R  1uF 1uF 1uF 1uF 1uF 1uF 0.1uF	E ef.No.:10,  10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355	1-125-777-11 1-164-943-11 1-164-943-11 1-104-847-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.3uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V
C201 C202 C203 C204 C205 C206 C207 C208	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********* (R  1uF 1uF 1uF 1uF 1uF 1uF 0.1uF	E ef. No.:10,  10% 10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V 10V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11 1-135-259-11	CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.33uF 0.1uF 0.1uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V 16V 6.3V
C201 C202 C203 C204 C205 C206 C207 C208 C209	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ******** (R  1uF 1uF 1uF 1uF 1uF 0.1uF 0.1uF 0.1uF	E ef.No.:10,  10% 10% 10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V 10V 10V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11 1-135-259-11	CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.33uF 0.1uF 0.1uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V 16V 6.3V
C201 C202 C203 C204 C205 C206 C207 C208	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ********* (R  1uF 1uF 1uF 1uF 1uF 1uF 0.1uF	E ef. No.:10,  10% 10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V 10V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11 1-135-259-11	CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.33uF 0.1uF 0.1uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V 16V 6.3V
C201 C202 C203 C204 C205 C206 C207 C208 C209	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ******** (R  1uF 1uF 1uF 1uF 1uF 0.1uF 0.1uF 0.1uF	E ef.No.:10,  10% 10% 10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V 10V 10V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-110-501-11 1-107-725-11 1-135-259-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.3uF 0.1uF 0.33uF 0.1uF 0.1uF	10% 10% 10% 20% 20%	10V 16V 16V 4V 16V 16V 16V 16V 16V 16V 16V 6.3V
C201 C202 C203 C204 C205 C206 C207 C208 C209	1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-107-682-11 1-125-777-11 1-125-777-11	VC-208 BOARD, ***********  < CAPACITOR >  CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	COMPLET ******** (R  1uF 1uF 1uF 1uF 1uF 0.1uF 0.1uF 0.1uF	E ef.No.:10,  10% 10% 10% 10% 10% 10% 10% 10%	16V 16V 16V 16V 16V 16V 16V 10V 10V	C305 C306 C307 C308 C309 C310 C311 C351 C353 C354 C355 C357	1-125-777-11 1-164-943-11 1-164-943-11 1-107-820-11 1-107-820-11 1-164-943-11 1-110-501-11 1-107-725-11 1-107-725-11 1-107-725-11 1-135-259-11 1-162-958-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP TANTAL. CHIP CERAMIC CHIP SI identified by	0.1uF 0.01uF 0.01uF 0.1uF 0.1uF 0.01uF 0.33uF 0.1uF 0.33uF 0.1uF 10uF 270PF	10% 10% 10% 20% 10% 10% 10% 20% 5%	10V 16V 16V 16V 16V 16V 16V 16V 16V 16V 50V

me components identified by mark △ or dotted line with mark △ are critical for safety.

Replace only with part number specified.

une marque ∆ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

# VC-208

Ref. No.	Part No.	Description			Remarks	ΙR	ef. No.	Part No.	Description			Remarks
			270DE	5%	50V	-	C705	1-107-820-11	CERAMIC CHIP	O fuE		16V
C359	1-162-958-11 1-164-942-11	CERAMIC CHIP	270PF 0.0068uF	5% 10%	16V		C705	1-107-820-11	CERAMIC CHIP	0.1uF 470PF	10%	16V 16V
C360 C361	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V		C722	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C368	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V		C723	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C370	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V		C724	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C371	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V		C725	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C372	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C726	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C373	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V		C727	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C374	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	*	C728	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C375	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V		C729	1-218-990-11	SHORT 0			
C376	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V		C730	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C377	1-135-151-21	TANTALUM CHIP		20%	4V		C731	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C379	1-107-820-11	CERAMIC CHIP	0.1uF	000/	16V		C732	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C400	1-104-847-11	TANTAL CHIP	22uF	20%	4V 4V		C733 C734	1-115-566-11 1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V 10V
C401	1-104-847-11	TANTAL. CHIP	22uF	20%	40		0/34	1-110-000-11	CERAMIC CHIP	4.7uF	10%	100
C402	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V		C735	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C403	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V		C736	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C404	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C738	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C405	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C740	1-104-851-11	TANTAL CHIP	10uF	20%	10V
C406	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C742	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C407	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V		C743	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C408	1-104-908-11	TANTAL. CHIP	47uF	20%	4V		C751	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C409	1-104-908-11	TANTAL. CHIP	47uF	20%	4V .		C752	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C410	1-104-908-11	TANTAL. CHIP	47uF	20%	4V		C753	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C411	1-104-908-11	TANTAL. CHIP	47uF	20%	4V		C754	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C414	1-135-201-11	TANTALUM CHIP	10uF	20%	4V		C755	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C415	1-107-820-11	CERAMIC CHIP	0.1uF		16V		C756	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C500	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V		C757	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C501	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V		C758	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C502	1-164-943-11	CERAMIC CHÍP	0.01uF	10%	16V		C759	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C503	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V		C760	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C504	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C761	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C505	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	į	C762	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C506	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V		C763	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C507	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V		C764	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C508	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V		C765	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C509	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V		C766	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C510	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V		C767	1-107-820-11	CERAMIC CHIP	0.1 uF		16V
C511	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V		C768	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C512	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V		C770	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C514	1-115-156-11	CERAMIC CHIP	1uF		10V	ŀ	C771	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C515	1-104-847-11	TANTAL. CHIP	22uF	20%	4V		C772	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C516	1-107-820-11	CERAMIC CHIP	0.1uF		16V		C1200	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C517	1-104-752-11	TANTAL. CHIP	33uF	20%	6.3V		C1201	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C518	1-115-156-11	CERAMIC CHIP	1uF		10V		C1202	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C519	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	'	C1203	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C520	1-164-941-11		0.0047uF	10%	16V		C1204	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C521	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V		C1205	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C522	1-125-777-11		0.1uF	10%	10V		C1206	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C523	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V		C1207	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C524	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V		C1208	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C525	1-107-823-11		0.47uF	10%	16V		C1209	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C526	1-164-937-11		0.001uF	10%	16V		C1210	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C527	1-164-943-11		0.01uF	10%	16V		C1211	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C528	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V		C1212	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C530	1-115-156-11	CERAMIC CHIP	1uF		10V		C1213	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C531	1-104-847-11	TANTAL, CHIP	22uF	20%	4V		C1214	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C701	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	ĺ	C1215	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C702	1-107-820-11		0.1uF		16V		C1216	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C703	1-104-851-11	TANTAL. CHIP	10uF	20%	10V	l .	C1217	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

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						D . M	Maria de Maria	Downsules
Ref. No.	<u>Part No.</u>	<u>Description</u>		Remarks	Ref. No.	Part No.	<u>Description</u>	<u>Remarks</u>
C1218		CERAMIC CHIP 0.01uF	10%	16V	IC351	8-759-359-49		
C1219	1-135-259-11		20%	6.3V	IC352		IC NJM3414AV(TE2)	
C1220		CERAMIC CHIP 0.01 uF	10%	16V	IC354 IC355		IC NJM3403AV(TE2) IC SN74HCT04APW-E20	
C1221		CERAMIC CHIP 0.01uF CERAMIC CHIP 0.01uF	10% 10%	16V 16V	10355 10356		IC NJM3403AV(TE2)	
C1222	1-164-943-11	GERAINIC CHIP G.UTUF	1070	,100	10000	0-700-000 40	10 NONO-TOOK (122)	
C1223	1-135-259-11	TANTAL, CHIP 10uF	20%	6.3V	IC357	8-759-075-66	IC TA75S01F(TE85R)	
C1224		CERAMIC CHIP 100PF	5%	16V	IC400	8-759-489-19	IC uPC6756GR-8JG-E2	
C1225		CERAMIC CHIP 2PF	0.25PF	16V	IC500		IC MPC17A134VMEL	
C1226	1-164-854-11	CERAMIC CHIP 15PF	5%	16V	IC501		IC NJM324V(TE2)	
C1227	1-164-874-11	CERAMIC CHIP 100PF	5%	16V	IC502	8-759-444-87	IC NJM324V(TE2)	
			<b>5</b> 0/	40)/	10704	0.750.540.05	IC UC710119TF	
C1228		CERAMIC CHIP 18PF	5%	16V	IC701		IC HG71C112TE IC MB3817PFV-G-BND	
C1229		CERAMIC CHIP 18PF CERAMIC CHIP 0.01uF	5% 10%	16V 16V	IC721 IC722		IC MB3817PFV-G-BND	
C1230 C1231		CERAMIC CHIP 0.1uF	10%	10V 10V	IC751	8-759-567-99	IC HD6437042AP10XSZ	
C1231	1-125-777-11		10%	10V	IC752		IC KM416V1204CT-L6T	
01202	1 120 111 11	OLI WING OTHER						
C1233		CERAMIC CHIP 0.1uF	10%	10V	IC753		IC TC7S08F(TE85R)	
C1234		CERAMIC CHIP 100PF	5%	16V	IC754		IC TC7W125FU-TE12R	
C1235	1-164-943-11	CERAMIC CHIP 0.01uF	10%	16V	IC755		IC TC7SH08FU-TE85R	
					IC756		IC CXD3133AR	
		< CONNECTOR >		,	IC757	8-759-547-24	IC RL5V834/E2H	
ONOOO	1 705 420-01	CONNECTOR, BOARD TO	BOARD 40F	•	IC758	8-759-499-07	IC MB81V4260S-70LPFTN-G-ER	
CN200 CN351		CONNECTOR, FFC/FPC 8F			IC759		IC MSM9831-SGX4880MAZ060	
CN400		CONNECTOR, FFC/FPC 6F			IC760		IC AK6440AM-E2	
CN500		CONNECTOR, FFC/FPC 26					IC SC371053FTAEB	
CN900	1-779-518-41	CONNECTOR, BOARD TO	BOARD 100	)P				
							< COIL >	
		< DIODE >			1,000	1 /1/ 75/ 11	INDUCTOR 10uH	
2001	0 740 400 04	DIODE 1T379-01-T8A			L200 L201		INDUCTOR 10uH	
D204		DIODE MA2S111-(K8).S	n		L300		INDUCTOR 10uH	
D500 D501		DIODE MA2S111-(K8).S			L301	1-414-754-11		
D721		DIODE RB491D-T146			L351		INDUCTOR 10uH	
D722		DIODE RB461F-T106						
					L352		INDUCTOR 100uH	
D723		DIODE 1SS388(TPL3)			L400		INDUCTOR 10uH	
D724		DIODE 1SS388(TPL3)			L500		INDUCTOR 10uH INDUCTOR 10uH	
D1200		DIODE HVC350BTRF			L501 L503		INDUCTOR 10uH	
D1201	8-719-071-32	DIODE HVC350BTRF			2,000	1 414 754 11	INDOGRATION.	
		< FERRITE BEAD >			L721	1-416-344-11	INDUCTOR 10uH	
		VI E/1111/2 DE/10			L722	1-416-344-11	INDUCTOR 10uH	
FB200	1-414-445-11	FERRITE OUH			L723		INDUCTOR 22uH	
FB201	1-469-311-22				L724		INDUCTOR 22uH	
FB202	1-414-445-11				L725	1-414-396-21	INDUCTOR 4.7uH	
FB203	1-414-445-11				1.706	1-216-296-91	CHOPT O	
FB204	1-414-445-11				L726 L727		INDUCTOR 4.7uH	
EDAGO	1-414-445-11	FERRITE OUH			L751		INDUCTOR 10uH	
FB300 FB301	1-414-445-11			*	L752		INDUCTOR 10uH	
FB501	1-414-445-11				L754		INDUCTOR 10uH	
FB752	1-543-955-22							
FB754					L1200		INDUCTOR 10uH	
					L1201		INDUCTOR 10uH	
		< IC >			L1202		INDUCTOR 1.8uH INDUCTOR 33uH	
10000	0.750.000.44	IC CXA2107R-T4			L1203 L1204		INDUCTOR 33uH	
IC203		IC CXA2107R-14 IC CXD2462R-T4			L1204	1 412 001-11	500.0	
IC204 IC205	8-759-561 <del>-</del> 39				L1205	1-414-754-11	INDUCTOR 10uH	
IC205	8-759-561-39							
IC207		IC ADS933Y/2K					< TRANSISTOR >	
					0000	0.700.007.74	TRANSISTOR LIMONALI (I/O) CO	
IC208		IC TC75S55F(TE85R)			Q200		TRANSISTOR UN9213J-(K8).SO TRANSISTOR UN9111J-(K8).SO	
IC300		IC CXD3116AR-T6			Q201 Q301		TRANSISTOR UN9211J-(K8).SO	
IC301		IC AK6440AM-E2 IC CXP912032-090R-T6			Q351		TRANSISTOR 2SB1462J-QR(K8).	30
IC302 IC305		IC MB88346LPFV-G-BN			Q352	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
10303	0 100 HAU-20	,5 ,0.5500 logi i v a biv			,			

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D.	of No	Part No	Description				Remarks	Ref. No.	Part No.	Description				Remarks
<u> </u>	ef. No.	Part No.			004 50 1 110		Hemains					417	F0/	
	Q353		TRANSISTOR					R302	1-218-953-11			1K	5%	1/16W
	Q354	8-729-013-31						R303	1-218-973-11			47K	5% 5%	1/16W
	Q500	8-729-037-53						R304 R305	1-218-977-11 1-218-953-11			100K 1K	5% 5%	1/16W 1/16W
	Q501 Q502	8-729-037-52 8-729-037-52						R306	1-218-955-11			100K	5%	1/16W
	Q502	0-729-037-32	I LAISISION	20	D22103-Q1	1(10).50		N300	1-210-377-11	nLo,01111		TOUR	J /0	1/1044
	Q503	8-729-037-52	TRANSISTOR	28	D2216J-QF	R(K8).SO		R307	1-218-977-11	RES.CHIP		100K	5%	1/16W
	Q504	8-729-037-52						R308	1-218-977-11			100K	5%	1/16W
	Q505	8-729-037-53						R309	1-218-953-11			1K	5%	1/16W
	Q701	8-729-046-00				.()		R311	1-218-989-11			1M	5%	1/16W
	Q702	8-729-037-74				).S0		R314	1-218-957-11			2.2K	5%	1/16W
	Q721	8-729-043-94						R316	1-218-961-11			4.7K	5%	1/16W
	Q722	8-729-043-94						R317	1-218-961-11			4.7K	5%	1/16W
	0727	8-729-024-48						R318	1-218-977-11			100K	5%	1/16W
	Q751	8-729-037-74						R320	1-218-957-11			2.2K	5%	1/16W
	Q752	8-729-037-74	TRANSISTUR	UIV	19213J-(K8	).50		R325	1-218-973-11	RES,UNIP		47K	5%	1/16W
	Q753	8-729-037-74	TRANSISTOR	UN	9213J-(K8	0.80		R326	1-218-973-11	RES.CHIP		47K	5%	1/16W
	Q754	8-729-037-61				,		R327	1-218-953-11	RES,CHIP		1K	5%	1/16W
	Q1200	8-729-807-86						R328	1-218-953-11	RES, CHIP		1K	5%	1/16W
	Q1201	8-729-037-52						R329	1-218-977-11			100K	5%	1/16W
	Q1202	8-729-037-52						R330	1-218-977-11	RES,CHIP		100K	5%	1/16W
	Q1203	8-729-037-52						R331	1-218-977-11			100K	5%	1/16W
	Q1204	8-729-037-52						R332	1-218-989-11			1M	5%	1/16W
	Q1205	8-729-037-52						R333	1-218-989-11			1M	5%	1/16W
	Q1206	8-729-037-53						R334	1-218-953-11		_	1K	5%	1/16W
	Q1207	8-729-037-53	TRANSISTOR	28	B1462J-QF	K(K8).SU		R336	1-218-990-11	SHORT	0			
	Q1208	8-729-037-76	TRANSISTOR	UN	9215J-(K8	).SO		R353	1-208-675-11	BES.CHIP		470	0.50%	1/16W
	Q1209	8-729-807-86						R354	1-208-927-11			47K		1/16W
	4,200	0 . 20 00. 00				–		R355	1-208-713-11			18K		1/16W
			< RESISTOR >					R357	1-208-719-11	,		33K	0.50%	1/16W
								R358	1-218-985-11	•		470K	0.50%	1/16W
	R200	1-218-977-11	RES,CHIP		100K	5%	1/16W			•				
	R201	1-218-935-11	RES,CHIP		33	5%	1/16W	R359	1-208-719-11	RES,CHIP		33K	0.50%	1/16W
	R202	1-218-985-11	RES,CHIP		470K	5%	1/16W	R360	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
	R203	1-218-934-11			27	5%	1/16W	R361	1-208-683-11	RES,CHIP		1K	0.50%	1/16W
	R204	1-218-935-11	RES,CHIP		33	5%	1/16W	R362	1-208-719-11			33K	0.50%	1/16W
								R363	1-208-715-11	RES,CHIP		22K	0.50%	1/16W
	R205	1-218-935-11			33	5%	1/16W	D004	1 000 710 11	DE0 0111D		001/	0.500/	4.40144
	R207	1-218-990-11		0				R364	1-208-719-11			33K		1/16W
	R208	1-218-990-11		0				R365	1-208-927-11			47K		1/16W
	R209	1-218-990-11		0				R366 R367	1-208-683-11 1-218-977-11			1K 100K	0.50% · 5%	1/16W 1/16W
	R210	1-218-990-11	SHUNI	0				R368	1-218-977-11			150K	5%	1/16W
	R211	1-218-990-11	SHORT	0				1300	1-210-979-11	NEO,OHIF		TOOK	J /0	1/1000
	R212	1-218-990-11		0				R369	1-218-977-11	RES.CHIP		100K	5%	1/16W
	R213	1-218-989-11		-	1M .	5%	1/16W	R370	1-218-979-11			150K	5%	1/16W
	R214	1-218-989-11			1M	5%	1/16W	R371	1-208-927-11			47K		1/16W
	R215	1-218-989-11			1M	5%	1/16W	R372	1-208-927-11	,		47K		1/16W
								R373	1-218-977-11			100K	5%	1/16W
	R216	1-218-957-11			2.2K	5%	1/16W							
	R217	1-208-712-11	RES,CHIP		16K	0.50%	1/16W	R374	1-208-939-11			150K	0.50%	
	R218	1-208-683-11			1K		1/16W	R375	1-208-939-11			150K	0.50%	
	R220	1-208-947-11			330K	0.50%		R376	1-218-977-11	RES,CHIP		100K	5%	1/16W
	R221	1 <b>-</b> 218-985-11	RES,CHIP		470K	0.50%	1/16W	R377	1-208-715-11	RES,CHIP		22K	0.50%	
	DOOC	4 000 740 44	DEC OTHE		101/	0 E00/	1/1/01/4/	R378	1-208-715-11	RES,CHIP		22K	0.50%	1/16W
	R222	1-208-713-11			18K	0.50%		D270	1 200 707 11	DEC CLID		101/	0 500/	1/16/1/
	R223	1-208-713-11 1-208-713-11			18K 18K	0.50% 0.50%		R379 R380	1-208-707-11 1-208-707-11	•		10K 10K	0.50% 0.50%	1/16W 1/16W
	R224 R225	1-208-713-11			18K	0.50%		R381	1-208-707-11	RES, CHIP		68K	0.50% 5%	1/16W
	R225 R226	1-208-713-11			18K		1/16W	R382		RES,CHIP		68K	5% 5%	1/16W
	11220	1 200 / 10-11	1.20,01111		1011	5.00 /0	.,	R383	1-218-975-11			68K	5%	1/16W
	R227	1-208-713-11	RES,CHIP		18K	0.50%	1/16W					<del>-</del>		
	R236	1-218-990-11	SHORT	0				R384	1-218-975-11	RES,CHIP		68K	5%	1/16W
	R237	1-218-965-11			10K	5%	1/16W	R385		RES,CHIP		68K	5%	1/16W
	R300	1-218-977-11			100K	5%	1/16W	R386		RES,CHIP		68K	5%	1/16W
	R301	1-218-973-11	RES,CHIP		47K	5%	1/16W	R387	1-218-953-11	,		1K	5%	1/16W
							.	R388	1-218-973-11	HES,CHIP		47K	5%	1/16W

Ref. No.	Part No.	<u>Description</u>				<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>				<u>Remarks</u>
R389	1-218-953-11	RES,CHIP		1K	5%	1/16W	R701	1-218-989-11	RES,CHIP		1M	5%	1/16W
R390	1-218-965-11			10K	5%	1/16W	R702	1-218-977-11	RES,CHIP		100K	5%	1/16W
R391	1-218-985-11			470K	0.50%	1/16W	R703	1-218-977-11	RES,CHIP		100K	5%	1/16W
R392	1-208-715-11			22K	0.50%	1/16W	R704	1-216-295-91	SHORT	0			
R393	1-208-931-11	RES,CHIP		68K	0.50%	1/16W	R705	1-218-961-11	RES,CHIP		4.7K	5%	1/16W
2004	4 000 005 11	DEC OUD		1001/	0.50%	1/16W	R721	1-218-937-11	RES,CHIP		47	5%	1/16W
R394	1-208-935-11	•		100K					RES,CHIP		150	5%	1/16W
R395	1-208-931-11	,		68K	0.50%	1/16W	R722	1-218-943-11	RES.CHIP		10K	5%	1/16W
R396	1-208-935-11			100K	0.50%	1/16W	R723	1-218-965-11	RES.CHIP			5%	1/16W
R400	1-218-969-11			22K	5%	1/16W	R724	1-218-965-11			10K		
R401	1-218-969-11	RES,CHIP		22K	5%	1/16W	R725	1-218-967-11	RES,CHIP		15K	5%	1/16W
R402	1-218-969-11	RES,CHIP		22K	5%	1/16W	R727	1-218-967-11	RES,CHIP		15K	5%	1/16W
R403	1-218-969-11	RES,CHIP		22K	5%	1/16W	R728	1-208-715-11	RES,CHIP		22K	0.50%	1/16W
R404	1-218-965-11	RES,CHIP		10K	5%	1/16W	R729	1-208-719-11	RES,CHIP		33K		1/16W
R405	1-218-965-11	RES,CHIP		10K	5%	1/16W	R730	1-208-927 <b>-</b> 11	RES,CHIP		47K	0.50%	1/16W
R406	1-218-989-11	RES,CHIP		1M	5%	1/16W	R731	1-208-697-11	RES,CHIP		3.9K	0.50%	1/16W
R409	1-218-989-11	RES,CHIP		1M	5%	1/16W	R732	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
R500	1-218-975-11	RES,CHIP		68K	5%	1/16W		1-208-927-11	RES,CHIP		47K	0.50%	1/16W
R501	1-218-961-11			4.7K	5%	1/16W	R740	1-218-990-11	SHORT	0			
R502	1-216-295-91	•	0		•		R741	1-208-927-11	RES,CHIP		47K	0.50%	1/16W
R503	1-218-975-11	RES,CHIP	٠	68K	5%	1/16W	R742	1-218-977-11			100K	5%	1/16W
nous	1-210-375-11	rico,oini		OOK		1, 1011							
R505	1-218-953-11	RES,CHIP		1K	5%	1/16W	R743	1 <b>-</b> 218-989-11	RES,CHIP		1M	5%	1/16W
R506	1-218-989-11	RES,CHIP		1M	5%	1/16W	R744	1-218-977-11			100K	5%	1/16W
R507	1-218-957-11	RES,CHIP		2.2K	5%	1/16W	R745	1-218-990-11		0			
R508	1-218-965-11	RES,CHIP		10K	5%	1/16W	R751	1-218-977-11	RES,CHIP		100K	5%	1/16W
R509	1-218-981-11			220K	5%	1/16W	R754	1-218-977-11	RES,CHIP		100K	5%	1/16W
R510	1-218-985-11	RES,CHIP		470K	5%	1/16W	R755	1-218-977-11	RES,CHIP		100K	5%	1/16W
R511	1-218-985-11			470K	5%	1/16W	R756	1-218-958-11			2.7K	5%	1/16W
R512	1-218-957-11			2.2K	-5%	1/16W	R757	1-218-946-11	RES,CHIP		270	5%	1/16W
R513	1-218-967-11			15K	5%	1/16W	R758	1-218-944-11	RES,CHIP		180	5%	1/16W
R514	1-218-969-11			22K	5%	1/16W	R759	1-218-932-11			18	5%	1/16W
	4 040 005 44	מרכ פווום		470V	E0/	1/16///	R760	1-218-990-11	SHORT	0			
R515	1-218-985-11			470K	5%	1/16W			SHORT	0			
R516	1-218-953-11			1K	5%	1/16W	R761	1-218-990-11		U	47K	5%	1/16W
R517	1-218-953-11			1K	5%	1/16W	R763	1-218-973-11	RES,CHIP				1/16W
F518	1-218-947-11			330	5%	1/16W	R764	1-218-973-11	RES,CHIP		47K	5%	
R519	1-218-969-11	RES,CHIP		22K	5%	1/16W	R765	1-218-977-11	RES,CHIP		100K	5%	1/16W
R520	1-218-953-11	RES,CHIP		1K	5%	1/16W	R766	1-218-977-11			100K	5%	1/16W
R521	1-218-965-11	RES,CHIP		10K	5%	1/16W	-R767	1-218-977-11			100K	5%	1/16W
R522	1-218-973-11	RES,CHIP		47K	5%	. 1/16W	R768	1-218-977-11	•		100K	5%	1/16W
R523	1-216-295-91	SHORT	0				R769	1-218-977-11	RES,CHIP		100K	5%	1/16W
R525	1-218-953-11	RES,CHIP		1K	5%	1/16W	R770	1-218-977-11	RES,CHIP		100K	5%	1/16W
R526	1-218-989-11	RES,CHIP		1M .	5%	1/16W	R771	1-218-977-11	RES,CHIP		100K	5%	1/16W
R527	1-218-957-11			2.2K	5%	1/16W	R772	1-218-977-11			100K	5%	1/16W
R528	1-218-965-11			10K	5%	1/16W	R773	1-218-977-11	•		100K	5%	1/16W
R529	1-218-981-11			220K	5%	1/16W	R774	1-218-977-11	RES, CHIP		100K	5%	1/16W
R530	1-218-985-11			470K	5%	1/16W	R775	1-218-977-11			100K	5%	1/16W
11000		•							r				. 4 4 0 14
R531	1-218-985-11			470K	5%	1/16W	R776	1-218-977-11	RES,CHIP		100K	5%	1/16W
R532	1-218-957-11			2.2K	5%	1/16W	R777	1-218-977-11			100K	5%	1/16W
R533	1-218-967-11			15K	5%	1/16W	R778	1-218-977-11	RES,CHIP		100K	5%	1/16W
R534	1-218-969-11	RES,CHIP		22K	5%	1/16W	R779	1-218-977-11			100K	5%	1/16W
R535	1-218-985-11	RES,CHIP		470K	5%	1/16W	R780	1-218-977-11	RES,CHIP		100K	5%	1/16W
R536	1-218-953-11	RES,CHIP		1K	5%	1/16W	R781	1-218-977-11	RES,CHIP		100K	5%	1/16W
R537	1-218-953-11			1K	5%	1/16W	R782	1-218-977-11	RES,CHIP		100K	5%	1/16W
R538	1-218-947-11			330	5%	1/16W	R783	1-218-977-11	RES,CHIP		100K	5%	1/16W
R539	1-218-969-11			22K	5%	1/16W	R784	1-218-977-11	•		100K	5%	1/16W
R540	1-218-953-11			1K	5%	1/16W	R785	1-218-977-11			100K	5%	1/16W
		BEC 01=		4011	F0/	4 (4 (2) ***	D.700	1 040 077 4:	חבר מויים		1001/	E0/	4/46//
R541	1-218-965-11			10K	5%	1/16W	R786	1-218-977-11			100K	5%	1/16W
R542	1-218-973-11			47K	5%	1/16W	R787	1-218-977-11	RES,CHIP	^	100K	5%	1/16W
R543	1-218-973-11		_	47K	5%	1/16W	R788	1-218-990-11	SHORT	0	101/	E0/	1/16W
R544	1-218-990-11		0	4 717	<b>F</b> 0/	4 (4 0) 4 (	R789	1-218-965-11			10K	5% 5%	1/16W
R545	1-218-961-11	RES,CHIP		4.7K	5%	1/16W	R790	1-218-965-11	KEO,UMIP		10K	5%	1/1000

# VC-208 VF-121

Ref. N	lo.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	Description			<u>Remarks</u>
R7:		1-218-977-11	RES,CHIP	100K	5%	1/16W	C5006	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R7:		1-218-965-11	RES,CHIP	10K	5%	1/16W	C5007	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R7:		1-218-977-11	RES,CHIP	100K	5%	1/16W	C5008	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R7		1-218-953-11	RES,CHIP	1K	5%	1/16W	C5009	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
R7		1-107-820-11	CERAMIC CHIP	0.1MF		16V	C5010	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
R8	200	1-218-990-11	SHORT 0				C5011	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
no R8		1-218-990-11	SHORT 0				C5012	1-164-505-11	CERAMIC CHIP	2.2uF	1070	16V
R8		1-218-990-11	SHORT 0				C5013	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
R8			RES,CHIP	100K	5%	1/16W	C5015	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
R8		1-218-977-11	RES,CHIP	100K	5%	1/16W	C5016	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
D0	307	1-218-990-11	SHORT 0				C5017	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
	308	1-218-990-11	SHORT 0				C5018	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
	309	1-216-809-11	METAL CHIP	100	5%	1/16W	C5019	1-164-933-11		220PF	10%	16V
		1-218-990-11	SHORT 0				C5020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	920	1-218-990-11	SHORT 0				C5101	1 <b>-1</b> 15-467-11	CERAMIC CHIP	0.22uF	10%	10V
R1	1202	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5102	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	1203	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5103	1-104-851-11	TANTAL, CHIP	10uF	20%	10V
	1204	1-218-973-11	RES,CHIP	47K	5%	1/16W	C5104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
	1205	1-218-950-11	RES,CHIP	560	5%	1/16W	C5105	1-104-916-11	TANTAL. CHIP	6.8uF	20%	20V
	1206	1-218-977-11	RES,CHIP	100K	5%	1/16W	C5106	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
 D1	1207	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5108	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
	1208	1-218-959-11	RES,CHIP	3.3K	5%	1/16W	C5109	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
	1209	1-218-979-11	RES,CHIP	150K	5%	1/16W	C5110	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
	1210	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5111	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	1211	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5112	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
R-	1212	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5113	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
	1213	1-218-957-11	RES,CHIP	2.2K	5%	1/16W	C5114	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	1214	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5115	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
	1215	1-218-953-11	RES,CHIP	1K	5%	1/16W	C5116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	1216	1-218-959-11	RES,CHIP	3.3K	5%	1/16W	C5117	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
R.	1217	1-218-952-11	RES,CHIP	820	5%	1/16W	C5118	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
	1218	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
	1219	1-218-965-11	RES,CHIP	10K	5%	· 1/16W	C5120	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
R.	1266	1-216-864-11	METAL CHIP	0	5%	1/16W	C5121	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
R	1267	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5122	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
R	1268	1-218-965-11	RES,CHIP	10K	5%	1/16W	C5123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R <sup>.</sup>	1269	1-218-941-11	RES,CHIP	100	5%	1/16W			*			
R	1270	1-218-989-11		1M	5%	1/16W			< CONNECTOR >			
R	1271	1-218-977-11	RES,CHIP	100K	5%	1/16W	CN5001	1_78/_/20_11	CONNECTOR, FFC	/EDC (71E) 2	)1 D	
			< VIBRATOR >						CONNECTOR, BOX			
		4 707 500 01	VIDDATOD ODVO	TAL /078/LI	\				< DIODE >			
	200 300	1-767-586-21 1-767-450-11	VIBRATOR, CRYS VIBRATOR, CERA						< DIODE >			
	751		VIBRATOR, LITHIU			/lHz)	D5101		DIODE MA6S121			
X	1200	1-781-068-21	VIBRATOR, CRYS	TAL (40.5M	Hz)		D5102	8-713-102-80	DIODE 1T369-01	-T8A		
									< IC >			
		A-7073-682-A	VF-121 BOARD, C				105004	0.750.546.05	IC CVA044EAD T	•4		
			******		No 10 0	00 Series)	IC5001		IC CXA8115AR-T IC M62376GP-65			
				(1101.	.14010,0	oo oenes)	IC5002		IC MB40D001PF		3	
			< CAPACITOR >				IC5101		IC MB3789PFV-G			
			(0/11/10/10/17				IC5102		IC CXD2458AR-T			
	5001	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V						
	5002		CERAMIC CHIP	0.01uF	10%	16V			< COIL >			
	5003		TANTAL CHIP	2.2uF	20%	16V	1.5004	1 414 754 11	INDUCTOR 40 !!			
	5004	1-164-943-11	CERAMIC CHIP	0.01uF	10% 10%	16V 16V	L5001 L5002	1-414-754-11 1-414-754-11	INDUCTOR 10uH INDUCTOR 10uH			
C	5005	1-104-943-11	CERAMIC CHIP	0.01uF	10 /0	100	L5002 L5101	1-414-734-11	INDUCTOR CHIP	220uH		
							L5102	1-414-756-11	INDUCTOR 47uH			
							L5103		INDUCTOR 4.7uH			
						1	-					

F	Ref. No.	Part No.	Description				<u>Remarks</u>	Ref. No.	Part No.	Description			Remarks
_			< TRANSISTO	R >						VI-151(D) BOARD VI-151(D) BOARD			
	Q5101	8-729-013-72	TRANSISTOR							******			•
	Q5102 Q5103	8-729-037-61 8-729-037-74	TRANSISTOR TRANSISTOR								(Ref	f.No.:10,0	000 Series)
	Q3100	0 120 007 11				,,,,,,				< CAPACITOR >			
			< RESISTOR :	>				C1400	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5001	1-218-990-11	SHORT	0				C1401	1-109-994-11	CERAMIC CHIP	2.2uF	10%	10V
	R5003	1-218-990-11	SHORT	0				C1402	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5005	1-218-971-11	RES,CHIP		33K	5%	1/16W	C1403	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5008	1-218-969-11	RES,CHIP	_	22K	5%	1/16W	C1404	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
	R5016	1-218-990-11	SHORT	0				C1405	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5018	1-218-990-11	SHORT	0				C1409	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
	R5020	1-218-975-11	RES,CHIP	•	68K	5%	1/16W	C1418	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
	R5021	1-218-971-11	RES,CHIP		33K	5%	1/16W	C1422	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
	R5022	1-218-985-11	RES,CHIP		470K	5%	1/16W	C1423	1-125-899-11	TANTAL, CHIP	220uF	20%	4V
	R5023	1-218-972-11	RES,CHIP		39K	5%	1/16W						
			DEC CLUB		001/	En/	4 (4 () ) )	C1433	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5024	1-218-972-11	RES,CHIP		39K	5% 5%	1/16W 1/16W	C1434 C1436	1-162-970-11 1-135-149-21	CERAMIC CHIP TANTALUM CHIP	0.01uF	10% 20%	25V 10V
	R5025 R5026	1-218-975-11 1-218-971-11	RES,CHIP RES,CHIP		68K 33K	5% 5%	1/16W	C1438	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5020	1-218-973-11			47K	5%	1/16W	C1439	1-125-899-11	TANTAL. CHIP	220uF	20%	4V
	R5028	1-218-972-11	RES,CHIP		39K	5%	1/16W				•		
								C1449	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5029	1-218-990-11	SHORT	0				C1450	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
	R5030	1-218-941-11	RES,CHIP		100	5%	1/16W	C1451	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5031	1-218-941-11	RES,CHIP		100	5% 5%	1/16W 1/16W	C1452 C1503	1-164-858-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP	22PF 0.01uF	5% 10%	16V 16V
	R5035 R5038	1-218-941-11 1-218-990-11	RES,CHIP SHORT	0	100	376	1/1044	01505	1-104-343-11	CERAIVIIC CRIF	0.0 Tur	10 /6	100
	NJ030	1-210 330 11	OHOIH	Ü				C1505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5039	1-218-990-11	SHORT	0				C1506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5040	1-216-861-11	METAL CHIP		2.2M	5%	1/16W	C1507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5041	1-216-839-11	METAL CHIP	_	33K	5%	1/16W	C1512	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
	R5043	1-218-990-11	SHORT	0	100	E0/	1/16W	C1513	1-109-982-11	CERAMIC CHIP	1uF	10%	1,0V
	R5045	1-218-941-11	RES,CHIP		100	5%	1/1044	C1600	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
	R5046	1-218-941-11	RES.CHIP		100	5%	1/16W	C1601	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
	R5047	1-218-941-11	RES,CHIP		100	5%	1/16W	C1602	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
	R5101	1-216-864-11	METAL CHIP		0	5%	1/16W	C1603	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V .
	R5102	1-218-901-11	RES,CHIP		180K	0.50%	1/16W	C1604	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5103	1-218-975-11	RES,CHIP		68K	5%	1/16W	C1606	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
	R5104	1-218-974-11	RES,CHIP		56K	5%	1/16W	C1607	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
	R5104	1-218-887-11			47K	0.50%	1/16W	C1609	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5106	1-218-975-11			68K	5%	1/16W	C1610	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
	R5107	1-218-970-11			27K	5%	1/16W	C1611	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
	R5108	1-218-982-11	RES,CHIP		270K	5%	1/16W	04640	1 164 049 11	CEDÁMIC CUID	0.015	100/	161/
	DE100	1-218-973-11	RES,CHIP		47K	5%	1/16W	C1612 C1613	1-164-943-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP	0.01uF 0.01uF	10% 10%	16V 16V
	R5109 R5110	1-218-973-11	•		56K	5% 5%	1/16W	C1614	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5111	1-218-965-11	RES,CHIP		10K	5%	1/16W	C1615	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5113	1-218-979-11			150K	5%	1/16W	C1617	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
	R5114	1-218-954-11	RES,CHIP		1.2K	5%	1/16W				****		
	M-225	4 040 000 44	DEC OUR		1001/	E0/	1/16/8/	C1618 C1619	1-164-882-11 1-109-982-11	CERAMIC CHIP CERAMIC CHIP	220PF 1uF	5% 10%	16V 10V
	R5115	1-218-980-11 1-218-969-11	RES,CHIP RES,CHIP		180K 22K	5% 5%	1/16W 1/16W	C1620	1-109-962-11	TANTAL. CHIP	10uF	20%	6.3V
	R5116 R5117	1-218-985-11			470K	5%	1/16W	C1621	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
	R5118	1-218-983-11			330K	5%	1/16W	C1622	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
	R5119	1-218-971-11	•		33K	5%	1/16W						
			DEC 21		43.0	E0/	4/4000	C1623	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
	R5120	1-218-989-11			1M	5%	1/16W	C1804	1-164-943-11	CERAMIC CHIP	0.01uF 0.01uF	10% 10%	16V 16V
	R5121	1-218-974-11 1-218-965-11	RES,CHIP RES,CHIP		56K 10K	5% 5%	1/16W 1/16W	C1833 C1834	1-164-943-11 1-164-943-11	CERAMIC CHIP CERAMIC CHIP	0.01uF 0.01uF	10%	16V 16V
	R5123 R5125	1-218-905-11			33K	5% 5%	1/16W	C1837	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5127	1-218-990-11	•	0	5511		.,	0.307		22.3.3.70 0110	2.2161	. + , 0	•
								C1838	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5128	1-218-953-11	RES,CHIP		1K	5%	1/16W	C1840	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	R5134	1-218-990-11	SHORT SHORT	0				C1844 C1845	1-164-943-11 1-135-259-11	CERAMIC CHIP TANTAL. CHIP	0.01uF 10uF	10% 20%	16V 6.3V
	R5136	1-218-990-11	SHUNT	Ų	<u> </u>			C1846	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	<u>Description</u>			<u>Remarks</u>
			40	000/	10V	C2045	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
C1847	1-104-851-11	TANTAL, CHIP	10uF	20%		<b>)</b>		CERAMIC CHIP	0.01uF	10%	16V
C1850	1-164-866-11	CERAMIC CHIP	47PF	5%	16V	C2046	1-164-943-11				
C1852	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	C2047	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1854	1-164-866-11	CERAMIC CHIP	47PF	5%	16V	C2048	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1856	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2049	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
•											
C1860	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2051	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
C1869	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2053	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
	1-104-851-11	TANTAL. CHIP	10uF	20%	10V	C2054	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C1875		CERAMIC CHIP	0.1uF	10%	10V	C2055	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C1878	1-125-777-11				16V	C2056	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1881	1-164-935-11	CERAMIC CHIP	470PF	10%	100	02000	1-104-343-11	OLITAWIO OTITI	0.0141	1070	100
		050 4440 01110	0.04	400/	101	00006	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1884	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2206					
C1885	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2210	1-107-820-11		0.1uF		16V
C1886	1-125-777 <i>-</i> 11	CERAMIC CHIP	0.1uF	10%	10V	C2211	1-107-820-11		0.1uF		16V
C1887	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2212	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
C1888	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2213	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
•											
C1889	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2215	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1890	1-164-935-11	CERAMIC CHIP	470PF	10%	16V	C2216	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1891	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2217	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
			0.01uF	10%	16V	C2218	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1901	1-164-943-11	CERAMIC CHIP						CERAMIC CHIP	0.01 uF	10%	16V
C1903	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2219	1-164-943-11	GENAMING GRIF	0.01ul	10 /0	100
					401/	00000	4 404 040 44	OFDANAIO OUID	0.01	10%	16V
C1904	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2220	1-164-943-11	CERAMIC CHIP	0.01 uF		
C1909	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C2221	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
C1910	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2222	1 <b>-</b> 164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1914	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2223	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
C1915	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2224	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
0,0.0	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					1					
C1933	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V	C2225	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2001	1-107-823-11		0.47uF	10%	16V	C2226	1-107-820-11	CERAMIC CHIP	0.1uF		16V
			0.47uF	10%	16V	C2227	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2002	1-107-823-11					C2232	1-164-858-11		22PF	5%	16V
C2003	1-164-943-11		0.01uF	10%	16V				15PF	5%	16V
C2004	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2233	1-164-854-11	CERAMIC CHIP	IDFF	J /0	10 V
							4 407 000 44	OED AMAG OUID	0.46		101/
C2007	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2234	1-107-820-11		0.1uF		16V
C2008	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2237	1-107-820-11		0.1uF		16V
C2009	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V	C2238	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C2010	1-110-569-11		47uF	20%	6.3V	C2239	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C2012	1-107-823-11		0.47uF	10%	16V	C2400	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
02012	1-107-020-11	OLI II MINO OTTA	,0,11,01								
C2014	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2402	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
			0.01uF	10%	16V			CERAMIC CHIP	10PF	0.5PF	16V
C2015	1-164-943-11					C2405		CERAMIC CHIP	0.01uF	10%	16V
C2016	1-107-823-11		0.47uF	10%	16V				0.01uF	10%	16V
C2017	1-164-874-11		100PF	5%	16V	C2408	1-164-943-11				
C2018	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2409	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
		*						OED ANAIO OLUB	4	400/	401/
C2022	1 <b>-</b> 107-686-11	TANTAL. CHIP	4.7uF	20%	16V	C2410	1-109-982-11		1uF	10%	10V
C2024	1-135-091-00	TANTALUM CHIP	1uF	20%	16V	C2500	1-164-941-11		0.0047uF	10%	16V
C2025	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V	C2507	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C2027	1-164-943-11		0.01uF	10%	16V	C2546	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2028	1-107-823-11		0.47uF	10%	16V	C2550	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
OLOLO											
C2029	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	C2551	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2030	1-164-874-11		100PF	5%	16V	C2552	1-125-777-11		0.1uF	10%	10V
			0.47uF	10%	16V	C2553		TANTALUM CHIP		20%	16V
C2031	1-107-823-11					C2554		CERAMIC CHIP	0.0047uF	10%	16V
C2032	1-135-259-11		10uF	20%	6.3V				0.0047 di 0.1uF	10%	10V
C2033	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	C2555	1-120-777-11	CERAMIC CHIP	U. Tur	10 /0	100
						00550	4 404 007 44	OFFI ANALO OLUB	0.004	+00/	161/
C2034	1 <b>-</b> 164-943-11		0.01uF	10%	16V	C2556		CERAMIC CHIP	0.001uF	10%	16V
C2035	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2557	1-125-777-11		0.1uF	10%	10V
C2036	1-107-823-11		0.47uF	10%	16V	C2558	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2037	1-135-259-11		10uF	20%	6.3V	C2559	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2038	1-164-943-11		0.01uF	10%	16V	C2561	1-107-686-11		4.7uF	20%	16V
02000					*						
C2039	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C2562	1-164-943-11	CERAMIC CHIP	0.01 uF	10%	16V
C2040	1-135-259-11		10uF	20%	6.3V	C2563	1-164-943-11		0.01uF	10%	16V
	1-135-259-11		10uF	20%	6.3V	C2564		CERAMIC CHIP	0.01uF	10%	16V
C2041				20%	6.3V	C2565		CERAMIC CHIP	330PF	5%	50V
C2042	1-135-259-11		10uF			C2566		CERAMIC CHIP	0.1uF	10%	10V
C2044	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	1 02000	1-120-111-11	OLIMBIIO OFIF	o. rui	10/0	

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Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			Remarks
C2567	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V	C3242	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C2569	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3243	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C2570	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C3244	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C2572	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3245	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C2573	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V	C3246	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C2574	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C3247	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2575	1-105-170-11	CERAMIC CHIP	0.047 di 0.1uF	10%	10V	C3248	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C2576	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3249	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C2577	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V	C3250	1-135-259-11	TANTAL, CHIP	10uF	20%	6.3V
C2579	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3251	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
						20050		TANTAL OUID	40	000/	0.01
C2582	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3252	1-135-259-11	TANTAL. CHIP TANTAL. CHIP	10uF 10uF	20% 20%	6.3V 10V
C2583	1-107-686-11	TANTAL. CHIP	4.7uF	20% 10%	16V 10V	C3253 C3254	1-104-851-11 1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2585	1-125-777-11		0.1uF 0.1uF	10%	10V 10V	C3254	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V 16V
C2586	1-125-777-11	CERAMIC CHIP	0.1uF 0.1uF	10%	10V 10V	C3256	1-107-019-11	TANTAL. CHIP	10uF	20%	10V 10V
C2587	1-125-777-11	CERAMIC CHIP	U.Tur	1076	100	03230	1-104-031-11	IAMIAL. OIIII	Tour	2070	100
C2588	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C3257	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2589	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C3258	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2590	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	C3259	1-135-214-21	TANTAL. CHIP	4.7uF	20%	20V
C2591	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	C3260	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3200	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C3261	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
		OED ANALO OLUD	0.1	10%	16V	C3262	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3201	1-107-826-11	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.047uF	10%	16V 16V	C3263	1-107-819-11		0.022uF	10%	16V
C3202	1-165-176-11 1-107-826-11	CERAMIC CHIP	0.047ur 0.1uF	10%	16V	C3264	1-113-985-11	TANTAL. CHIP	10uF	20%	20V
C3203	1-107-020-11	CERAMIC CHIP	0.147uF	10%	16V	C3265	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3204	1-105-170-11	CERAMIC CHIP	0.047 ur 0.022uF	10%	16V	C3266	1-115-467-11		0.22uF	10%	10V
C3205	1-107-019-11	CLIMINIO OTTI	0.02201	10 70	101	00200	1 110 101 11	02.0.000	0,200	, •,,-	
C3206	1-104-913-11	TANTAL. CHIP	10uF	20%	16V	C3267	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3207	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3269	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C3208	1-104-913-11	TANTAL. CHIP	10uF	20%	16V	C3270	1-119-751-11	TANTAL. CHIP	22uF	20%	,16V
C3209	1-164-874-11	CERAMIC CHIP	100PF	5%	16V	C3271	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3210	1-119-751-11	TANTAL. CHIP	22uF	20%	16V			< CONNECTOR >			
00011	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V			< CONNECTOR >	•		
C3211 C3212	1-162-966-11	CERAMIC CHIP	0.001ui	10%	50V	CN1810	1-573-350-11	CONNECTOR, FF	C/FPC 10P		
C3212	1-104-913-11	TANTAL. CHIP	10uF	20%	16V	4	1-779-519-31			OARD 100	)P
C3215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		1-784-421-11				
C3216	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	CN2903	1-784-423-21				
00,210						CN2904	1-750-303-41	CONNECTOR, BO	OARD TO BO	OARD 20F	)
C3217	1-162-962-11		470PF	10%	50V						
C3218	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CN2905	1-779-334-11	CONNECTOR, FF	C/FPC 20P		_
C3219	1-162-960-11		220PF	10%	50V			CONNECTOR, BO		DARD 60H	,
C3220	1-164-874-11		100PF	5%	16V			CONNECTOR, FF			
C3221	1-164-505-11	CERAMIC CHIP	2.2uF		16V			CONNECTOR, FF		27P	
C3222	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V	CIVESTA	1-704-421-11	COMMECTOR, 11	0/11 0 (ZII)	211	
C3223	1-115-566-11		4.7uF	10%	10V	CN2913	1-784-421-11	CONNECTOR, FF	C/FPC (ZIF)	27P	
C3224	1-164-939-11		0.0022uF	10%	16V	l l	1-580-057-11		R 4P ` ´		
C3225	1-164-940-11		0.0033uF	10%	16V	CN3201	1-691-550-11	PIN, CONNECTO	R (1.5MM)	(SMD) 3P	
C3226	1-164-939-11		0.0022uF	10%	16V						
				400/	4014			< DIODE >			
C3227	1-164-939-11		0.0022uF		16V	Dicon	0.740.055.00	DIODE 10/4/70	TI 1 0		
C3228	1-164-940-11		0.0033uF		16V	D1600		DIODE KV1470			
C3229	1-164-939-11		0.0022uF	10%	16V	D2200		DIODE MA728- DIODE MA728-			
C3230	1-164-939-11		0.0022uF	10%	16V	D2201 D2203		DIODE MA2S1			
C3231	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V	D2206		DIODE MA2S1			
C3232	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V						
C3233	1-115-566-11		4.7uF	10%	10V	D2207		DIODE MA728-			
C3234	1-115-566-11		4.7uF	10%	10V	D2208		DIODE MA728-			
C3235	1-115-566-11		4.7uF	10%	10V	D2500		DIODE MA2S1	, ,		
C3236	1-162-970-11		0.01uF	10%	25V	D3200		DIODE MA728-			
				0.55	4611	D3201	8-719-420-14	DIODE MA8082	?-TX		
C3237	1-104-851-11		10uF	20%	10V	Doooc	0 710 400 14	DIODE MAROOS	)_TV		
C3238	1-115-566-11		4.7uF	10%	10V	D3202		DIODE MA8082 DIODE MA8082			
C3239	1-115-566-11		4.7uF	10% 10%	10V 10V	D3203 D3204		DIODE 188388			
C3240	1-115-566-11 1-115-566-11		4.7uF 4.7uF	10%	10V 10V	D3204		DIODE RB461F			
C3241	1-110-000-11	OLI MINIO OHIF	∓.1 ui	10/0	130	D3206		DIODE RB461F			

Ref. No	n 1	Part No.	Description	Remarks	Ref. No.	Part No.	Description		<u>Remarks</u>
	_		DIODE RB461F-T106		L2202	_	INDUCTOR 1u	Н	
D32			DIODE 1SS388(TPL3)		L2400		INDUCTOR 10		
D32	09	8-719-066 <b>-</b> 34	DIODE RB461F-T106		L2511		INDUCTOR 10		
D32		8-719-066-34	DIODE RB461F-T106		L2512		INDUCTOR 10		
D32			DIODE RB461F-T106		L3204	1-416-345-11	INDUCTOR 22	uH	
			DIODE DRIVAD TIVO		1000	1 410 040 11	INDUCTOR 22	uu ·	
D32		8-719-066-16	DIODE RB491D-T146 DIODE MA796-TX		L3205 L3206		INDUCTOR 33 INDUCTOR 22		
D32 D32	13	8-/19-02/ <i>-//</i> 9-710-066-3 <i>4</i>	DIODE RB461F-T106		L3200		INDUCTOR 22		
D32			DIODE RB461F-T106		L3208		INDUCTOR 22		
D32			DIODE 1SS388(TPL3)		L3209	1-416-345-11	INDUCTOR 22	uH	
D32			DIODE 1SS388(TPL3)		L3210		INDUCTOR 4.		
D32	220	8-719-056-48	DIODE 1SS388(TPL3) DIODE 1SS388(TPL3)		L3211 L3212		INDUCTOR 4.1		
D32	221	8-719-050-40	DIODE 155388(TPL3)		L3213		INDUCTOR 4.		
D32	224	8-719-056-48	DIODE 1SS388(TPL3)		L3214		INDUCTOR 4.		
D32			DIODE MA2S111-(K8).S0		L3215		INDUCTOR 4.		
D32	227	8-719-056-23	DIODE MA2S111-(K8).SO				INDUCTOR 4.		
			< IC >		L3217 L3218		INDUCTOR 4. INDUCTOR 4.		
			< 10 >		E3210	1-414-000-21	110001011 4.	, uii	
IC1	400	8-759-430-57	IC M62367GP-75ED			•	< LINE FILTER	>	
IC1	402	8-759-534-25	IC AN2222FBQ-EB						
IC1	501	8-759-535-44	IC M65511WG-600D		LF3200	1-411-957-11	FILTER, COMN	10N MODE	
IC1	502	8-759-547-25	IC MB90097PFV-G-110-BND-ER				10 FINIX		
IC1	600	8-759-545-03	IC HG73C037BPTL				< IC LINK >		
ICt	601	8.752.390.00	IC CXD3129R-T6		↑ PS2200	1-576-122-21	LINK. IC	0.4A	
101 101	602	8-752-390-00	IC CXD3200R-T6			1-533-760-21		1.4A	
IC1	814	8-752-086-52	IC CXA2071R-T4		PS3201	1-533-760-21	FUSE (SMD)	1.4A	
IC1	816	8-752-086-53	IC CXA2072R-T4			1-533-760-21		1.4A	
IC1	900	8-759-534-27	IC F712504BPM-TEB		△ PS3203	1-533-760-21	FUSE (SMD)	1.4A	
100	004	0 750 566 17	IC AN2902FHQ-EB		↑ PS3204	1-533-760-21	FUSE (SMD)	1.4A	
			IC PCM3006T/T2			1-533-760-21		1.4A	
IC2	2200	8-759-398-90	IC S-81236PG-P7-T1			1-533-760-21		1.4A	
102	2201	8-759-424-79	IC S-8423YFS-T2						
IC2	2203	8-759-536-72	IC TL1596CPWR				< TRANSISTO	R>	
		0 750 500 07	10 CEZOOCCOE TED		01400	0 700 007 50	TDANGISTOD	2SD2216J-QR(K8).S0	
	2204 2401		IC S579286GGB-TEB IC MB91191LGA-G-127-BND-ER					UN9113J-(K8).SO	
			IC AK6480AM-E2		Q1403			2SC5376-B(TE85L)	
	2503	8-759-431-30	IC CXA8062R-EB		Q1405	8-729-040-77	TRANSISTOR	2SC5376-B(TE85L)	
102	2504	8-759-385-94	IC CXA8053Q-TE-B		Q1406	8-729-040-77	TRANSISTOR	2SC5376-B(TE85L)	
			10. The 1005(51)		04500	0.700.007.50	TDANCICTOR	0000016 L 00/(20) 00	
	2505	8-759-434-46 8-759-491-09	IC TA8486F(EL) IC MB4488PFV-G-BND-ER		Q1500 Q1501			2SD2216J-QR(K8).S0 2SD2216J-QR(K8).S0	
103	3200	0-759-491-09	10 MD4460F1 V-G-BND-EIT		Q1502			2SD2216J-QR(K8).SO	
			< COIL >		Q1810	8-729-037-53	TRANSISTOR	2SB1462J-QR(K8).SO	
					Q2003	8-729-037-61	TRANSISTOR	UN9113J-(K8).SO	
	400		INDUCTOR 10uH				TRANSIOTOR	11000404 (100) 00	
	404		INDUCTOR 10uH		Q2004 Q2005			UN9210J-(K8).SO UN9210J-(K8).SO	
	500 501		INDUCTOR 100uH INDUCTOR 100uH		Q2005 Q2006			2SD2216J-QR(K8).SO	
	601		INDUCTOR 1.5uH		Q2007			2SD2216J-QR(K8).SO	
					Q2008			2SD2216J-QR(K8).S0	
	602		INDUCTOR 10uH					000001010000000000000000000000000000000	
	603		INDUCTOR 10uH		Q2009			2SD2216J-QR(K8).S0	
	604		INDUCTOR 10uH INDUCTOR 10uH		Q2011 Q2012			UN9115J-(K8).SO UN9115J-(K8).SO	
	605 803		INDUCTOR 10uH		Q2012 Q2013			UN9213J-(K8).SO	
LI	500	ון דענידור ו			Q2014			2SD1511-R/S(TX)	
Ĺ1:	808		INDUCTOR 10uH						
	811		INDUCTOR 10uH						
	004		INDUCTOR 10uH			`			
	005 201		INDUCTOR 10uH INDUCTOR 10uH					•	-
LZ.	ZU I	1-414-704-11	IMPOOTOIT TOUT		·   !	Note:		Note:	e (

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ∆ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- · · · ·	D- + N-	Description		Domorko	l Daf No	Part No	Description			Remarks
Ref. No.	Part No.	<u>Description</u>		<u>Remarks</u>	Ref. No.	Part No.	Description	0000010101		nemarks
Q2200			UN9213J-(K8).SO		Q3241		TRANSISTOR			
Q2201			UN9213J-(K8).SO		Q3242 Q3243		TRANSISTOR			
Q2202			2SD2216J-QR(K8).SO 2SD2216J-QR(K8).SO		Q3243					
Q2203 Q2206			HN1L02FU(TE85R)		Q3245		TRANSISTOR			
QZZOO	0 720 0 11 10								,	
Q2211			UN9111J-(K8).SO		Q3246		TRANSISTOR			
Q2212			2SK2009(TE85L)		Q3247		TRANSISTOR TRANSISTOR			
Q2213	8-729-427-70				Q3248 Q3249		TRANSISTOR			
Q2214 Q2216			UN9113J-(K8).SO 2SB624-T1BV4		Q3249 Q3250		TRANSISTOR		1(110).50	
QZZTO	0-725-141-40	MANDIOTOM	200024 11044		40200	0 120 0 11 20	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Q2217	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO		Q3251		TRANSISTOR			
Q2218			UN9211J-(K8).SO		Q3252		TRANSISTOR			
Q2219			UN9211J-(K8).SO		Q3253					
Q2220			UN9213J-(K8).SO		Q3254	8-729-037-74	TRANSISTOR	UN9213J-(K	3).50	
Q2221	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO				< RESISTOR >	•		
Q2505	8-729-037-74	TRANSISTOR	UN9213J-(K8).SO				\ TIE01010117			
Q2506	8-729-141-48	TRANSISTOR	2SB624-T1BV4		R1400	1-218-981-11	RES,CHIP	220K	5%	1/16W
Q2507	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		R1401			100	5%	1/16W
Q2901	8-729-037-72	TRANSISTOR	UN9211J-(K8).SO		R1403			4.7K	5%	1/16W
Q3200	8-729-024-48	TRANSISTOR	2SK1830-TE85L		R1410			4.7K	5%	1/16W
					R1411	1-218-953-11	RES,CHIP	1K	5%	1/16W
∆ Q3201	8-729-036-43 8-729-036-43		HAT1023R-EL		R1414	1-218-969-11	BES CHID	22K	5%	1/16W
∆ Q3202 Q3203			2SB1122-ST-TD		R1417			10K	5%	1/16W
Q3203 Q3204			UN9213J-(K8).SO		R1418			22K	5%	1/16W
Q3205			2SK1830-TE85L		R1419				. 5%	1/16W
40200	0 120 021 10				R1421			1K	5%	1/16W
Q3206			2SD1622-ST-TD							
Q3207	-		2SB1462J-QR(K8).S0		R1425			33	5%	1/16W
Q3208	8-729-804-41		2SB1122-ST-TD		R1426			10K	5% 5%	1/16W 1/16W
Q3209			CPH3106-PM-TL		R1430 R1432			1K 10K	5% 5%	1/16W
Q3210	8-729-043-94	TRANSISTUR	CPH3106-PM-TL		R1432			1K	5%	1/16W
Q3211	8-729-043-94	TRANSISTOR	CPH3106-PM-TL		111400		1120,01111		970	1, 1011
Q3212	8-729-043-94		CPH3106-PM-TL	1 1	R1434	1-218-965-11	RES,CHIP	10K	5%	1/16W
Q3213	8-729-043-94		CPH3106-PM-TL		R1438			33	5%	1/16W
Q3214	8-729-043-94	TRANSISTOR	CPH3106-PM-TL		R1439			33	5%	1/16W
Q3215	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		R1440			10K	5%	1/16W
	0 700 047 64	TDANCIOTOD	0004504 T4		R1445	1-218-935-11	RES,CHIP	33	5%	1/16W
Q3216		TRANSISTOR	2SB1581-11 2SB1462J-QR(K8).SO		D1///6	1-218-935-11	BES CHID	33	5%	1/16W
Q3217 Q3218	8-729-037-53 8-729-041-24				R1447			33	5%	1/16W
Q3210 Q3219			2SD2216J-QR(K8).SO		R1453			68	5%	1/16W
Q3220	8-729-041-24				R1454		·	1M	5%	1/16W
					R1455	1-218-957-11	RES,CHIP	2.2K	5%	1/16W
Q3221	8-729-041-24							4=-0	=0/	4 4 6 1 1
Q3222	8-729-041-24	TRANSISTOR			R1507			470	5%	1/16W
Q3223		TRANSISTOR			R1508			3.3K 4.7K	5% 5%	1/16W 1/16W
Q3224	8-729-041-24		UN9213J-(K8).SO		R1509 R1510			470	5%	1/16W
Q3225	8-729-037-74	INANSISION	01032100-(No).00		R1511			3.3K	5%	1/16W
Q3226	8-729-042-56	TRANSISTOR	MGSF3455VT1							
Q3227	8-729-037-61		UN9113J-(K8).SO		R1512			4.7K	5%	1/16W
Q3228	8-729-037-74		UN9213J-(K8).SO		R1513			1.5K	5%	1/16W
Q3229	8-729-037-74		UN9213J-(K8).SO		R1514			470	5%	1/16W
Q3230	8-729-041-23	TRANSISTOR	NDS356AP		R1515 R1516			4.7K 680	5% 5%	1/16W 1/16W
Q3231	8-729-041-23	TRANSISTOR	NDS356AP		RISIO	1-210-931-11	NEO,OHII	000	<b>J</b> 70	171000
Q3231	8-729-037-52		2SD2216J-QR(K8).SO	•	R1517	1-218-990-11	SHORT	0		
Q3233			2SB1462J-QR(K8).SO		R1519	1-218-990-11	SHORT	0		•
Q3234		TRANSISTOR	2SD2216J-QR(K8).S0		R1521	1-218-947-11	RES,CHIP	330	5%	1/16W
Q3235	8-729-037-53		2SB1462J-QR(K8).SO		R1522			0	5%	1/16W
00000	0 700 007 50	TDANCIOTOR	0001460100400		R1618	1-218-961-11	RES,CHIP	4.7K	5%	1/16W
Q3236			2SB1462J-QR(K8).SO 2SD2216J-QR(K8).SO							
Q3237 Q3238			2SD2216J-QR(K8).SO		,			T		
Q3239			2SB1462J-QR(K8).SO			Note:	n identification	Note:	anto ida	tifiée par
Q3240			2SB1462J-QR(K8).SO			The components mark △ or dotted		Les compos une marque		
							safety.	pour la sécu	rité.	, i
					_	Replace only wit specified.	n part number	Ne les remp		
	-			6-	·31 l		····			1

Ref. No.	Part No.	<u>Description</u>				<u>Remarks</u>	Ref. No.	Part No.	Description				<u>Remarks</u>
R1619 R1621 R1622 R1623 R1624	1-218-947-11 1-218-965-11 1-218-965-11 1-218-990-11 1-218-990-11	RES,CHIP RES,CHIP SHORT	0	330 10K 10K	5% 5% 5%	1/16W 1/16W 1/16W	R1943 R1945 R2017 R2018 R2019	1-218-990-11 1-218-990-11 1-218-936-11 1-218-935-11 1-218-953-11	RES,CHIP	0	39 33 1K	5%	1/16W 1/16W 1/16W
R1625 R1626 R1627 R1628 R1629	1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2021 R2022 R2023 R2028 R2029	1-218-965-11 1-218-965-11 1-218-953-11 1-218-973-11 1-218-973-11	RES,CHIP		10K 10K 1K 47K 47K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1630 R1632 R1633 R1635 R1638	1-218-990-11 1-218-849-11 1-208-703-11 1-218-849-11 1-218-990-11	RES,CHIP RES,CHIP RES,CHIP	0	1.2K 6.8K 1.2K	0.50% 0.50% 0.50%	1/16W 1/16W 1/16W	R2031 R2032 R2038 R2040 R2041	1-218-965-11 1-218-965-11 1-218-973-11 1-218-969-11 1-218-969-11			10K 10K 47K 22K 22K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1639 R1641 R1642 R1644 R1647	1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2052 R2053 R2054 R2055 R2056	1-218-990-11 1-218-990-11 1-218-960-11 1-218-968-11 1-218-936-11	SHORT RES,CHIP RES,CHIP	0	3.9K 18K 39	5% 5% 5%	1/16W 1/16W 1/16W
R1649 R1651 R1652 R1653 R1654	1-218-990-11 1-218-990-11 1-218-990-11	SHORT SHORT SHORT	0 0 0 0				R2057 R2058 R2059 R2060 R2061	1-218-935-11 1-218-957-11 1-218-957-11 1-218-957-11 1-218-957-11	RES,CHIP RES,CHIP RES,CHIP		33 2.2K 2.2K 2.2K 2.2K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1689 R1694 R1695 R1696 R1697	1-218-938-11 1-218-938-11 1-208-707-11	RES,CHIP RES,CHIP RES,CHIP		47 56 56 10K 10K	5% 0.50% 0.50% 0.50% 0.50%	1/16W 1/16W 1/16W 1/16W 1/16W	R2062 R2063 R2064 R2065 R2066	1-218-949-11 1-218-949-11 1-218-953-11 1-218-951-11 1-218-965-11	RES,CHIP RES,CHIP RES,CHIP		470 470 1K 680 10K	5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W
R1698 R1699 R1826 R1828 R1834	1-218-938-11 1-218-979-11 1-218-949-11	RES,CHIP RES,CHIP RES,CHIP		56 56 150K 470 22K	0.50% 0.50% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2201 R2203 R2204 R2205 R2206	1-218-953-11 1-218-953-11 1-218-953-11 1-218-977-11 1-218-945-11	RES,CHIP RES,CHIP RES,CHIP		1K 1K 1K 100K 220	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1836 R1837 R1838 R1846 R1846	7 1-218-965-11 3 1-218-969-11 3 1-218-831-11	RES,CHIP RES,CHIP RES,CHIP		10K 10K 22K 220 10K	5% 5% 5% 0.50% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2207 R2208 R2209 R2210 R2213	1-218-957-11 1-218-961-11 1-218-973-11 1-218-977-11 1-218-953-11	RES,CHIP RES,CHIP RES,CHIP		2.2K 4.7K 47K 100K 1K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R1855 R1855 R1855 R1856	5 1-218-831-1 <sup>-7</sup> 7 1-218-831-1 <sup>-7</sup> 9 1-218-831-1 <sup>-7</sup>	RES,CHIP RES,CHIP RES,CHIP		4.7K 220 220 220 12K	5% 0.50% 0.50% 0.50% 5%		R2214 R2215 R2221 R2222 R2223	1-218-953-11 1-218-985-11 1-218-985-11 1-218-985-11 1-218-985-11	RES,CHIP RES,CHIP RES,CHIP		1K 470K 470K 470K 470K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R187 R187 R187 R187 R187	1 1-218-939-1 2 1-218-990-1 4 1-218-989-1	RES,CHIP SHORT RES,CHIP	0	10K 68 1M 10K	5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W	R2224 R2225 R2226 R2227 R2229	1-218-985-11 1-218-985-11 1-218-985-11 1-218-977-11 1-218-985-11	RES,CHIP RES,CHIP RES,CHIP		470K 470K 470K 100K 470K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R187 R187 R187 R187 R190	7 1-218-978-1 8 1-218-973-1 9 1-218-966-1	RES,CHIP RES,CHIP RES,CHIP		6.8K 120K 47K 12K 15	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W	R2230 R2231 R2232 R2233 R2234	1-218-985-11 1-218-973-11 1-218-965-11 1-218-958-11 1-218-934-11	RES,CHIP RES,CHIP RES,CHIP		470K 47K 10K 2.7K 27	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/16W 1/16W
R193 R193 R194 R194 R194	9 1-218-990-1 0 1-218-990-1 1 1-218-990-1	1 SHORT 1 SHORT 1 SHORT	0 0 0 0	100K	5%	1/16W	R2235 R2236 R2237 R2238 R2239	1-218-989-11 1-218-985-11 1-218-985-11 1-218-989-11 1-218-989-11	RES,CHIP RES,CHIP RES,CHIP		1M 470K 470K 1M 1M	5% 0.50% 0.50% 0.50% 0.50%	1/16W 1/16W

Ref. No.	<u>Part No.</u>	<u>Description</u>			<u>Remarks</u>	Ref. No.	<u>Part No.</u>	<u>Description</u>			Remarks
R2240	1-218-977-11	RES,CHIP	100K	5%	1/16W	R2302	1-218-953-11	RES,CHIP	1K	5%	1/16W
R2241	1-218-977-11	RES,CHIP	100K	5%	1/16W	R2303	1-218-953-11		1K	5%	1/16W
R2242	1-218-977-11	RES,CHIP	100K	5%	1/16W	R2304	1-218-953-11		1K	5%	1/16W
R2245	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2401	1-218-985-11		470K	5%	1/16W
R2246	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2405	1-218-977-11	RES,CHIP	100K	5%	1/16W
50547	1 010 077 11	DEC OUID	1001/	5%	1/16W	R2406	1-218-977-11	RES,CHIP	100K	5%	1/16W
R2247	1-218-977-11	RES,CHIP	100K	5% 5%	1/16W 1/16W	R2400	1-218-977-11		100K	5%	1/16W
R2248	1-218-989-11	RES,CHIP	1M		1/16W	R2407	1-218-977-11	RES,CHIP	100K	5%	1/16W
R2249	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2409	1-218-985-11		470K	5%	1/16W
R2250	1-218-989-11	RES,CHIP	1M	5% 5%	1/16W	R2409	1-218-953-11		1K	5%	1/16W
R2251	1-218-989-11	RES,CHIP	1M	370	171000	112410	1 210 300 11	TIEO,OTTI	***	0 /0	.,
R2252	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2411	1-218-953-11	RES,CHIP	1K	5%	1/16W
R2253	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2415	1-218-953-11	RES,CHIP	1K	5%	1/16W
R2254	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2416	1-218-985-11	RES,CHIP	470K	5%	1/16W
R2255	1-218-989-11	•	1M	5%	1/16W	R2417	1-218-953-11	RES,CHIP	1K	5%	1/16W
R2256	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2418	1-218-985-11	RES,CHIP	470K	5%	1/16W
									417	F0/	4 (4 0) 14
R2257	1-218-973-11	RES,CHIP	47K	5%	1/16W	R2419	1-218-953-11 1-218-985-11		1K 470K	5% 5%	1/16W 1/16W
R2258	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2420	1-218-953-11		470K	5%	1/16W
R2259	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2421	1-218-985-11		470K	5%	1/16W
R2260	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2422				5%	1/16W
R2261	1-218-989-11	RES,CHIP	1M	5%	1/16W	R2423	1-218-953-11	RES,CHIP	1K	J 70	1/1000
R2262	1-219-570-11	RES,CHIP	10M	5%	1/16W	R2424	1-218-985-11	RES,CHIP	470K	5%	1/16W
R2263	1-218-962-11	RES,CHIP	5.6K	5%	1/16W	R2425	1-218-990-11	SHORT 0			
R2264	1-218-957-11		2.2K	5%	1/16W	R2426	1-218-990-11	SHORT 0			
R2265	1-218-977-11		100K	5%	1/16W	R2427	1-218-990-11	SHORT 0			
R2266	1-218-985-11		470K	5%	1/16W	R2428	1-218-990-11	SHORT 0			
										0 7700/	: 4 (4 (5) 14)
R2267	1-218-985-11	RES,CHIP	470K	5%	1/16W	R2429	1-208-943-11		220K	0.50%	1/16W
R2268	1-218-949-11	*	470	5%	1/16W	R2430	1-208-927-11		47K	0.50%	1/16W
R2269	1-218-955-11	•	1.5K	5%	1/16W	R2432	1-218-977-11		100K	5%	1/16W
R2270	1-218-985-11		470K	5%	1/16W	R2433	1-218-977-11	·	100K	5%	1/16W
R2271	1-216-791-11	METAL CHIP	3.3	5%	1/16W	R2434	1-218-977-11	RES,CHIP	100K	5%	1/16W
D2272	1-218-961-11	RES,CHIP	4.7K	5%	1/16W	R2436	1-218-977-11	RES,CHIP	100K	5%	1/16W
R2272	1-218-959-11		3.3K	5%	1/16W	R2439	1-218-977-11		100K	5%	1/16W
R2273	1-218-959-11		3.3K	5%	1/16W	R2440	1-218-977-11		100K	5%	1/16W
R2274 R2275	1-218-959-11		3.3K	5%	1/16W	R2441	1-218-985-11		470K	5%	1/16W
R2276	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2442	1-218-990-11				
112210	1 210 000 11	1123,31111									
R2277	1-218-941-11	RES,CHIP	100	5%	1/16W	R2445	1-218-961-11	RES,CHIP	4.7K	5%	1/16W
R2278	1-218-941-11	RES,CHIP	100	5%	1/16W	R2505	1-218-965-11		10K	5%	1/16W
R2279	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2506	1-208-707-11		10K	0.50%	1/16W
R2280	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2507	1 <b>-</b> 218-965-11		10K	5%	1/16W
R2281	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2508	1-218-965-11	RES,CHIP	10K	5%	1/16W
	1 010 050 44	DEC OHID	41/	E0/	1/1CM	R2510	1-218-959-11	DEC CHID	3.3K	5%	1/16W
R2282	1-218-953-11		1K 1K	5% 5%	1/16W 1/16W	R2510	1-208-935-11		100K	0.50%	1/16W
R2283	1-218-953-11		1K	5%	1/16W	R2512	1-218-990-11		10010	0.0070	,, 1011
R2284	1-218-953-11		1K	5%	1/16W	R2517	1-218-989-11		1M	5%	1/16W
R2285	1-218-953-11		1K	5%	1/16W	R2530	1-218-971-11		33K	5%	1/16W
R2286	1-218-953-11	NEO, OTHE	111	370	171000	112000	1 210 01 11	1120,01111	00.1	0,0	.,
R2287	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2531	1-217-671-11	METAL CHIP	1	5%	1/10W
R2288	1-218-953-11	RES, CHIP	1K	5%	1/16W	R2532	1-217-671-11	METAL CHIP	1	5%	1/10W
R2289	1-218-953-11		1K	5%	1/16W	R2533	1-217-671-11	METAL CHIP	1	5%	1/10W
R2290	1-218-953-11		1K	5%	1/16W	R2534	1-218-940-11	RES,CHIP	82	5%	1/16W
R2291	1-218-953-11		1K	5%	1/16W	R2546	1-218-979-11	RES,CHIP	150K	5%	1/16W
		DEO CLUE	417	Fo/	4/4/03/4	D0547	1_010 066 11	DEC CUID	10K	5%	1/16W
R2292	1-218-953-11		1K	5%	1/16W	R2547	1-218-965-11		4.7K	5% 5%	1/16W
R2293	1-218-953-11		1K	5%	1/16W	R2549	1-218-961-11		4.7K 4.7K	5% 5%	1/16W
R2294	1-218-953-11		1K	5%	1/16W	R2550	1-218-961-11		4.7K 470	0.50%	1/16W
R2295	1-218-953-11		1K	5%	1/16W	R2551	1-208-675-11		470 10K	0.50% 5%	1/16W
R2296	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2552	1-218-965-11	വധ,ഗവദ	ION	<b>J</b> /0	1/1000
R2297	1-218-953-11	RES,CHIP	1K	5%	1/16W	R2553	1-218-965-11	RES,CHIP	10K	5%	1/16W
R2298	1-218-953-11		1K	5%	1/16W	R2554	1-218-965-11		10K	5%	1/16W
R2299	1-218-953-11		1K	5%	1/16W	R2556	1-218-978-11	RES,CHIP	120K	5%	1/16W
R2300	1-218-989-11		1M	5%	1/16W	R2557	1-218-986-11		560K	5%	1/16W
R2301	1-218-953-11	•	1K	5%	1/16W	R2558	1-218-953-11		1K .	5%	1/16W
112001		•									

Ref. No.	Part No.	Description				<u>Remarks</u>	Ref. No.		Part No.	<u>Description</u>			<u>Remarks</u>
	•	RES.CHIP	2	2K	5%	1/16W	R322	8	1-218-969-11	RES,CHIP	22K	5%	1/16W
R2559 R2560	1-218-969-11 1-218-969-11	RES,CHIP		2K	5%	1/16W	R323		1-218-965-11	RES,CHIP	10K	5%	1/16W
R2564	1-217-671-11	METAL CHIP	1		5%	1/10W	R323		1-208-927-11	RES,CHIP	47K		1/16W
R2565	1-217-671-11	METAL CHIP	- 1		5%	1/10W	R323		1-218-969-11		22K	5%	1/16W
R2566	1-218-941-11		1	00	5%	1/16W	R323	33	1-208-927-11	RES,CHIP	47K	0.50%	1/16W
R2567	1-218-941-11	RES,CHIP	1	00	5%	1/16W	R323		1-218-971-11	RES,CHIP	33K	5%	1/16W
R2568	1-218-941-11	RES,CHIP		00	5%	1/16W	R323		1-208-715-11		22K	0.50%	1/16W
R2569	1-218-957-11	RES,CHIP		2.2K	5%	1/16W	R323		1-218-965-11		10K	5%	1/16W 1/16W
R2570	1-218-977-11			100K	5%	1/16W	R323		1-218-974-11		56K 56K	0.50% 0.50%	1/16W
R2571	1-218-970-11	RES,CHIP	2	27K	5%	1/16W	R323	88	1-218-974-11	RES,UNIF	JOK	0.50 /6	•
R2572	1-218-965-11			lok	5%	1/16W	R323		1-208-715-11 1-208-935-11	RES,CHIP RES,CHIP	22K 100K	0.50% 0.50%	1/16W 1/16W
R2573	1-218-949-11		1	170	5% 5%	1/16W 1/10W	R324		1-218-945-11	RES,CHIP	220	5%	1/16W
R2574	1-217-671-11 1-217-671-11		1		5%	1/10W	R324		1-208-709-11		12K	0.50%	1/16W
R2575 R2576	1-217-671-11		1		5%	1/10W	R324		1-208-697-11		3.9K	0.50%	1/16W
R2577	1-217-671-11	METAL CHIP	1	1	5%	1/10W	R324	44	1-208-697-11	RES,CHIP	3.9K	0.50%	1/16W
R2578	1-218-973-11			47K	5%	1/16W	R324	45	1-208-691-11	RES,CHIP	2.2K	0.50%	1/16W
R2579	1-218-965-11	,	1	10K	5%	1/16W	R324		1-216-296-91				
R2580	1-218-935-11	RES,CHIP		33	5%	1/16W	R324		1-218-965-11		10K	5%	1/16W
R2581	1-218-935-11	RES,CHIP	3	33	5%	1/16W	R324	48	1-218-945-11	RES,CHIP	220	5%	1/16W
R2582	1-218-961-11	RES,CHIP		4.7K	5%	1/16W	R324		1-218-945-11		220	5%	1/16W
R2583	1-218-965-11			10K	5%	1/16W	R32		1-218-969-11		22K	5%	1/16W 1/16W
R2585	1-218-959-11			3.3K	5%	1/16W	R325		1-218-973-11		47K 100	5% 5%	1/16W
R2586	1-218-944-11			180	5%	1/16W 1/16W	R32		1-218-941-11 1-218-941-11		100	5%	1/16W
R2587	1-218-969-11	RES,CHIP		22K	5%	1/1000							
R2599	1-217-671-11			1	5%	1/10W	R32		1-208-927-11		47K	0.50%	1/16W
R2901	1-217-671-11			1	5%	1/10W	R32		1-218-945-11 1-218-947-11		220 330	5% 5%	1/16W 1/16W
R2902	1-217-671-11			1 -	5%	1/10W	R32		1-218-947-11		47K	5%	1/16W
R2903	1-218-990-11			4.7K	5%	1/16W	R32		1-218-965-11		10K	5%	1/16W
R2905	1-218-961-11			7.71	<b>3</b> 70	17 1000						0.50%	1/16W
R2906	1-218-990-11						R32		1-208-719-11 1-208-715-11		33K 22K	0.50% 0.50%	1/16W
R2907	1-218-990-11			480	5%	1/16W	R32		1-218-965-11		10K	5%	1/16W
R3200	1-218-989-11			1M 1M	5% 5%	1/16W	R32		1-218-989-11		1M	5%	1/16W
R3201 R3202	1-218-989-11 1-218-849-11			3.3K	0.50%	1/16W	R32		1-216-864-11		0	5%	1/16W
									1-218-981-11		220K	5%	1/16W
R3203	1-216-150-91			10	5%	1/8W	R32 R32		1-218-981-11		47K	5%	1/16W
	1-218-953-11	RES,UHIP		1K 1K	5% 5%	1/16W 1/16W	R32		1-218-969-11		22K	5%	1/16W
R3205 R3206		RES,UTIF		4.7K	5%	1/16W	R32		1-218-989-11		1M	5%	1/16W
R3207				3.3K	0.50%		R32		1-218-981-11	RES,CHIP	220K	5%	1/16W
	•			47K	5%	1/16W	R32	60	1-218-977-11	BES CHIP	100K	5%	1/16W
R3208		RES,UNIP		22K	0.50%	1/16W	R32		1-218-989-11		1M	5%	1/16W
R3209 R3210				220K	5%	1/16W	R32		1-218-977-11		100K	5%	1/16W
R3211							R32		1-218-973-11		47K	5%	1/16W
R3212				1.0K	0.50%	1/16W	R32	273	1-218-965-11	RES,CHIP	10K	5% :	1/16W
R3213	1-208-935-1	I RES,CHIP		100K	0.50%	1/16W	R32	274	1-218-977-11	RES,CHIP	100K	5%	1/16W
R3214				1K	5%	1/16W	R32	75	1-218-988-11		820K	5%	1/16W
R3215							R32		1-218-977-11		100K	5%	1/16W
R3216					=		R32		1-218-969-11		22K	5% 0.50%	1/16W 1/16W
R3217	1 <b>-</b> 218-953-1	I RES,CHIP		1K	5%	1/16W	R32	2/8	1-208-949-11	RES,UNIP	390K	0.50%	
R3218	1-208-715-1	1 RES,CHIP		22K	0.50%		R32		1-208-927-11		47K	0.50%	1/16W
R3219	1-218-849-1	I RES,CHIP		1.2K	0.50%		R32		1-218-978-11		. 120K	0.50%	1/16W
R3220	1-208-715-1			22K	0.50%		R32		1-208-939-11		150K 47K	0.50% 0.50%	1/16W 1/16W
R3221				22K	5% 5%	1/16W 1/16W	R32 R32		1-208-927-11 1-208-935-11		100K	0.50%	1/16W
R3222				10K	5%								
R3223				10K	0.50%		R32		1-208-719-11		33K	0.50% 0.50%	1/16W 1/16W
R3224				68K	0.50%		R32 R32		1-208-943-11 1-208-947-11		220K 330K	0.50%	1/16W
R3225	1-218-970-1			27K 47K	5% 5%	1/16W 1/16W	R32		1-208-947-11		100K	0.50%	1/16W
R3226 R3227				100K	5% 5%	1/16W	R32		1-218-977-11		100K	5%	1/16W
N3421	1-210-3//-1	1 1160,01111		, 0010	570	.,	, ,,,,,,		. =	,			

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Ref. No.	Part No.	Description			<u>Remarks</u>	Ref. No.	<u>Part No.</u>	<u>Description</u>			<u>Remarks</u>
R3289	1-218-977-11		100K	5%	1/16W	C131		CERAMIC CHIP	0.1uF	E0/	25V 50V
R3290	1-218-969-11		22K	5%	1/16W	C132 C133		CERAMIC CHIP	27pF 0.001uF	5% 10%	50V 50V
R3291	1-218-989-11 1-218-977-11		1M 100K	5% 5%	1/16W 1/16W	6133	1-102-304-11	OLITAWIO OTTI	0.00141	1070	
R3292 R3293	1-218-981-11		220K	5%	1/16W			< CONNECTOR >	•		
NOZOO	1 210 001 11	1,20,01111									
R3294	1-208-943-11		220K	0.50%	1/16W	CN101	1-691-591-11	PIN, CONNECTO	R (1.5MM)	(SMD)8P	
R3295	1-218-978-11	,	120K	0.50%	1/16W	CN102	1-568-006-11	CONNECTOR, XI	K ITPE 3P	(IVIIG IIV)	
R3296	1-208-941-11 1-218-990-11	•	180K	0.50%	1/16W			< DIODE >			
R3297 R3298	1-208-943-11		220K	0.50%	1/16W						
110200	1 200 0 10 11					D101	8-719-056-89	DIODE MA8120			
R3299	1-218-990-11			<b>5</b> 0/	4 (4 0) (1	D102	8-719-056-89	DIODE MA8120			
R3300	1-218-965-11		10K	5%	1/16W	D103 D104	8-719-060-48 8-719-060-48	DIODE RB751\			
R3301 R3302	1-218-990-11 1-218-953-11	3113111	1K	5%	1/16W	D104	8-719-060-48	DIODE RB751\			
R3303	1-218-953-11	, .	1K	5%	1/16W	,					
,,,,						D106	8-719-060-48	DIODE RB751\			
		< TRANSFORMER	>			D107 D108	8-719-420-14 8-719-420-14	DIODE MA808			
T3200	1-433-417-21	TRANSFORMER, D	OC-DC COM	VERTER		D100	8-719-056-89	DIODE MA812			
T3200	1-429-565-21	TRANSFORMER, C				D110	8-719-056-89	DIODE MA812	0-TX		
	, ,20 000							10			
		< VIBRATOR >						< 1C >			
X1600	1-767-399-11	VIBRATOR, CRYST	TAL (24.57)	6 MHz)		IC101	8-759-478-03	IC RN5RL50A	A-TL ·		
X1000 X2200	1-767-450-11					IC102	8-759-111-56	IC uPC4572G2			
X2201	1-760-458-21	VIBRATOR, CRYS	TAL (32.76	8MHz)		IC103	8-759-111 <b>-</b> 56	IC uPC4572G2	?-E2		
X2400	1-760-655-41	VIBRATOR, CRYS	TAL (20MH	z)				< COIL >			
								C 001E >			
	A-7073-738-A	XL-2 BOARD, CON	<b>IPLETE</b>			L101	1-414-398-11	INDUCTOR 10			
		*********	*****			L102	1-414-398-11				
			(R	ef.No.:9,0	000 Series)	L103 L104	1-414-398-11 1-414-854-11	INDUCTOR 10: INDUCTOR 10:			
		< CAPACITOR >				L104	1-414-054-11	INDUSTRICE TO	411		
		CONTROTTORY						< IC LINK >			
C101	1-113-985-11		10uF	20%	20V			FLIGE (OMB)/O	0.4.\		
C102	1-164-156-11		0.1uF		25V	△ PS101	1-533-771-21	FUSE (SMD)(0.	8A)		
C103		CERAMIC CHIP TANTAL. CHIP	0.1uF 10uF	20%	25V 10V			< TRANSISTOR	<b>\&gt;</b> -		
C104 C105	1-104-851-11 1-126-603-11		4.7uF	20%	35V						
0100	1 120 000 11					Q101		TRANSISTOR			
C106	1-126-603-11		4.7uF	20%	35V	Q102	8-729-117-32	TRANSISTOR	2SC4177-1	ILbLb	
C107	1-164-156-11		0.1uF 0.001uF	10%	25V 50V			< RESISTOR >			
C108 C109	1-162-964-11 1-162-964-11		0.001uF	10%	50V			(1,20,0,70,17)			
C1103	1-135-181-21			20%	6.3V	R101	1-216-853-11	METAL CHIP	470K	5%	1/16W
0						R102	1-216-809-11		100	5%	1/16W 1/16W
C111	1-135-259-11		10uF	20% 20%	6.3V 6.3V	R103	1-216-845-11 1-216-083-00		100K 27K	5% 5%	1/10W
C112	1-135-181-21 1-135-181-21		4.7uF 4.7uF	20%	6.3V	R105	1-218-863-11		4.7K	0.50%	
C113 C114	1-164-156-11		0.1uF		25V			•			
C115	1-162-915-11		10PF	0.5PF	50V	R106	1-218-863-11		4.7K	0.50%	
		070 4440 0140	40DE	0.505	50V	R107 R108	1-218-863-11 1-218-863-11		4.7K 4.7K	0.50% 0.50%	
C116	1-162-915-11 1-126-603-11		10PF 4.7uF	0.5PF 20%	35V	R109	1-218-887-11		47K	0.50%	
C117 C118	1-126-603-11		4.7uF	20%	35V	R110	1-218-885-11	-	39K	0.50%	1/16W
C119	1-126-603-11		4.7uF	20%	35V					0.500/	4 13 01 11
C120	1-126-603-11	ELECT CHIP	4.7uF	20%	35V	R111	1-218-847-11		1K 120	0.50% 0.50%	
0101	1 160 064 11	CERAMIC CHIE	0.001uF	10%	50V	R112 R113	1-218-825-11 1-218-866-11	•	120K	0.50%	
C121 C122	1-162-964-11 1-162-964-11		0.001uF	10%	50V 50V	R114	1-218-863-11	•	4.7K	0.50%	1/16W
C123	1-162-964-11		0.001uF	10%	50V	R115	1-218-863-11		4.7K	0.50%	1/16W
C124	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
C125	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V					•	
C126	1-162-964-1	CERAMIC CHIP	0.001uF	10%	50V						
C126	1-162-964-1		0.001uF	10%	50V		Note:		Note :		1
C128	1-162-964-1	CERAMIC CHIP	0.001uF	10%	50V		Note: The component	ts identified by	Les compo		
C129	1-162-964-1		0.001uF	10%	50V		mark ∆ or dotte	d line with mark	une marqu pour la séc		t critiques
C130	1-162-964-1	I CERAMIC CHIP	0.001uF	10%	50V	1			Ne les rem	placer qu	
					. 6	-35	specified.		pièce porta	nt le numéi	ro spécifié.
						,		<del></del>			

## XL-2

Ref. No.	Part No.	Description			Remarks	ļ
R116 R117 R118 R119 R120	1-216-845-11 1-216-845-11 1-216-829-11 1-220-300-91 1-220-300-91	METAL CHIP METAL CHIP METAL CHIP RES,CHIP RES,CHIP	100K 100K 4.7K 6.8K 6.8K	5% 5% 5% 5% 5%	1/16W 1/16W 1/16W 1/2W 1/2W	
R121 R122 R123	1-218-855-11 1-216-841-11 1-216-296-91	RES,CHIP METAL CHIP SHORT 0	2.2K 47K	0.50% 5%	1/16W 1/16W	
		< SWITCH >				İ
S101 S102	1-570-711-11 1-570-711-11	SWITCH, SLIDE SWITCH, SLIDE				
		MISCELLANEOUS	3			
53	1-670-982-11	FP-14 FLEXIBLE I	BOARD			

		MISCELLANEOUS **************
53 61 62 103 107	1-670-982-11 1-670-976-21 1-670-980-11 1-670-979-11 1-670-990-21	FP-14 FLEXIBLE BOARD FP-8 FLEXIBLE BOARD FP-12 FLEXIBLE BOARD FP-11 FLEXIBLE BOARD FP-23 FLEXIBLE BOARD
116 119 152 157 160	1-475-949-21 1-774-867-31 1-670-981-21 1-670-977-21 1-505-619-11	SWITCH BLOCK, CONTROL(FK-4880) CONNECTOR,EXTERNAL(HOT SHOE)8P FP-13 FLEXIBLE BOARD FP-9 FLEXIBLE BOARD SPEAKER (2.0 CM)
203 217 218 △ 221 222	1-670-983-21 1-958-983-11 1-958-984-11 1-517-754-21 1-803-274-21	FP-16 FLEXIBLE BOARD HARNESS (CP-81) HARNESS (CP-82) TUBE, FLUORESCENT, COLD CATHODE MODULE, CRYSTAL INDICATION
224 252 261 263 303	1-670-986-21 1-694-411-11 1-785-247-11 1-670-985-21 1-670-984-11	FP-19 FLEXIBLE BOARD TERMINAL BOARD, BATTERY CONNECTOR, DC-IN FP-18 FLEXIBLE BOARD FP-17 FLEXIBLE BOARD
310 318 352 355 402	1-670-987-21 1-670-978-11 1-670-987-21 8-753-023-51 1-418-014-11	FP-20 FLEXIBLE BOARD FP-10 FLEXIBLE BOARD FP-20 FLEXIBLE BOARD LCX027AK-1 MICROPHONE UNIT
423 425 426	1-670-991-11 1-670-989-21 1-670-988-21	FP-37 FLEXIBLE BOARD FP-22 FLEXIBLE BOARD FP-21 FLEXIBLE BOARD (Including S700, S701, S702)
453 460	1-758-174-11 A-7093-999-A	LENS, ZOOM (VCL-4312VA) PRISM ASSY (PD100) (Including three CCD imagers)
460	A-7030-948-A	PRISM ASSY (PD100P) (Including three CCD imagers) Computer

Ref. No.	Part No.	Description	<u>Remarks</u>
502	1-959-236-11	HARNESS (XL-51)	
516	1-774-868-11	PLUG, CONNECTOR 8P	
CN901	1-784-723-11	PIN, CONNECTOR 4P	
D901	8-719-067-13	DIODE GL453K	
H901	8-719-061-28	DIODE HW-105C-FT-V (T REEL SEN	ISOR)
H902	8-719-061-28	DIODE HW-105C-FT-V (S REEL SEI	
M901	A-7048-889-A	DRUM ASSY (DEH-14B-R)	,
M902	8-835-606-01	MOTOR, DC SCD15A/C-NP (CAPST	AN)
M903	X-3948-346-1	MOTOR ASSY, L (LOADING)	
PH700	8-749-014-54	HIC CNA1312K01S0	
PH701	8-749-014-54	HIC CNA1312K01S0	
Q901	8-729-907-25	PHOTO TRANSISTOR PT4850F (TA	PE END)
Q902	8-729-907-25	PHOTO TRANSISTOR PT4850F (TA	
S700	1-771-487-21	SWITCH, SLIDE	
S701	1-762-851-21	SWITCH, TACT	
S702	1-762-851-21	SWITCH, TACT	
S901	1-771-039-51	SWITCH, PUSH (C IN SW)	
S902	1-572-719-32	SWITCH, PUSH (1 KEY)(REC PROC	)F)
S903	1-771-325-11	ENCODER, ROTARY (SWITCH)(MO	DE)
7. T. T. V.			

## ACCESSORIES \*\*\*\*\*\*

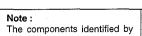
$\triangle$	1 <b>-</b> 475-599-11	ADAPTOR, AC (AC-L10A)
	1-543-798-11	FILTER, CLAMP (FERRITE CORE)
$\triangle$	1-690-827-11	CORD SET, POWER (PD100P)
	1-475-950-21	REMOTE COMMANDER (RMT-811)
	1-765-080-11	CORD, CONNECTION (A/V)(1.5m)
⚠	1-775-549-21	CORD, POWER (PD100)
Fig A	1-959-249-11	CORD, CONNECTION
		(FOR KEYBOARD, WITH ADAPTOR)
Fig B	1-959-250-11	PC CARD/PARALLEL PORT ADAPTOR
. •		(MSAC-PR1)
	3-052-849-01	LID, HOOD (FOR WIDE CONVERSION LENS)
	3-053-100-01	CD-ROM, INSTALL
	3-053-549-01	CAP, WIDE CONVERSION (58.5 Ø)
	3-053-550-01	CAP, WIDE CONVERSION (85 Ø)
	3-865-078-11	MANUAL, INSTRUCTION (ENGLISH)
•		(PD100/PD100P)
	3-865-078-21	MANUAL, INSTRUCTION (FRENCH)
		(PD100/PD100P)
	3-865-078-31	MANUAL, INSTRUCTION (GERMAN)(PD100)
	3-865-078-41	MANUAL, INSTRUCTION (ITALIAN)(PD100P)
	3-865-272-11	MANUAL, INSTRUCTION (CD-ROM INSTALL) (ENGLISH)
		(,

A-7094-002-A PC CARD ADAPTOR (MSAC-PC1) (WITH CASE) A-7094-044-A XLR BLOCK ASSY X-3948-941-1 CAP ASSY, LENS X-3949-154-1 HOOD ASSY, LENS

3-970-278-01 POUCH

3-987-015-01 BELT (S), SHOULDER 3-052-859-01 WIDE CONVERSION

A-7093-731-A NP-F330 BATTERY PACK (PD100) A-7093-732-A NP-F330 BATTERY PACK (PD100P)



mark  $\Delta$  or dotted line with mark △ are critical for safety.

Replace only with part number specified.

Note: Les composants identifiés par une marque \( \Delta \) sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

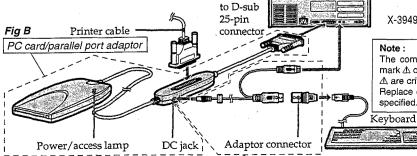


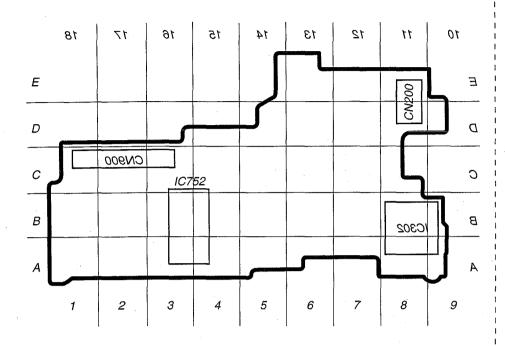
Fig A Power cord (With adaptor connector)-

6-36E

## (PARTS REFERENCE SHEET)

You can find the parts position of location of mount locations applying to VC-208 board of a set.

VC-208 DSR-PD100/PD100P SIDE A

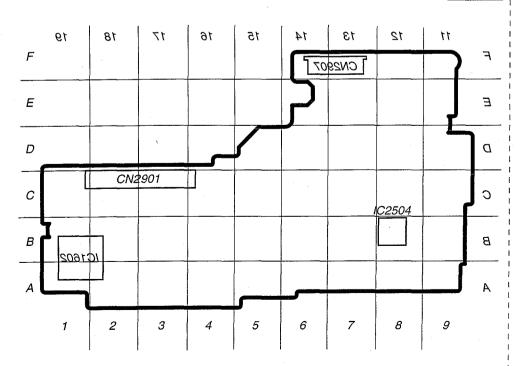


SIDE B DSR-PD100/PD100P VC-208

## (PARTS REFERENCE SHEET)

You can find the parts position of location of mount locations applying to VI-151 board of a set.

VI-151 DSR-PD100/PD100P SIDE A



SIDE B DSR-PD100/PD100P VI-151

X

# DSR-PD100/PD100P

SONY

**SERVICE MANUAL** 

US Model Canadian Model DSR-PD1000 AEP Model DSR-PD100P

# **SUPPLEMENT-1**

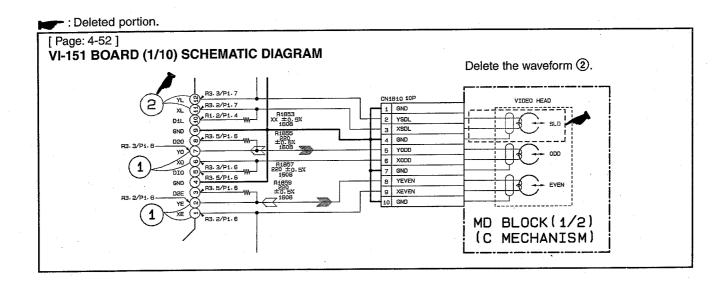
File this supplement-1 with the Service Manual. (EVB00374, EVB00850, EVB01385)

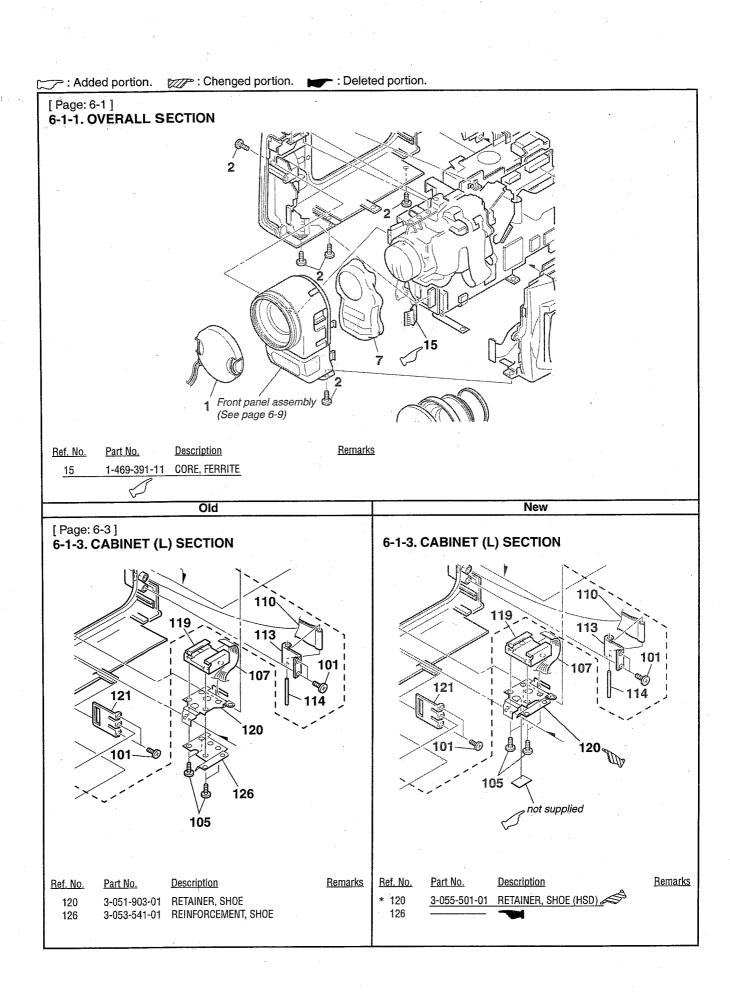
- The video head (SLD) circuit should be deleted from the schematic diagram...... (page 1)
- Several parts are added and changed...... (pages 2 to 4)
- The DC IN circuit is separated from the VI-151 board. A new independent printed wiring board PS-422 is newly added solely for the DC IN board......(pages 5 to 18)

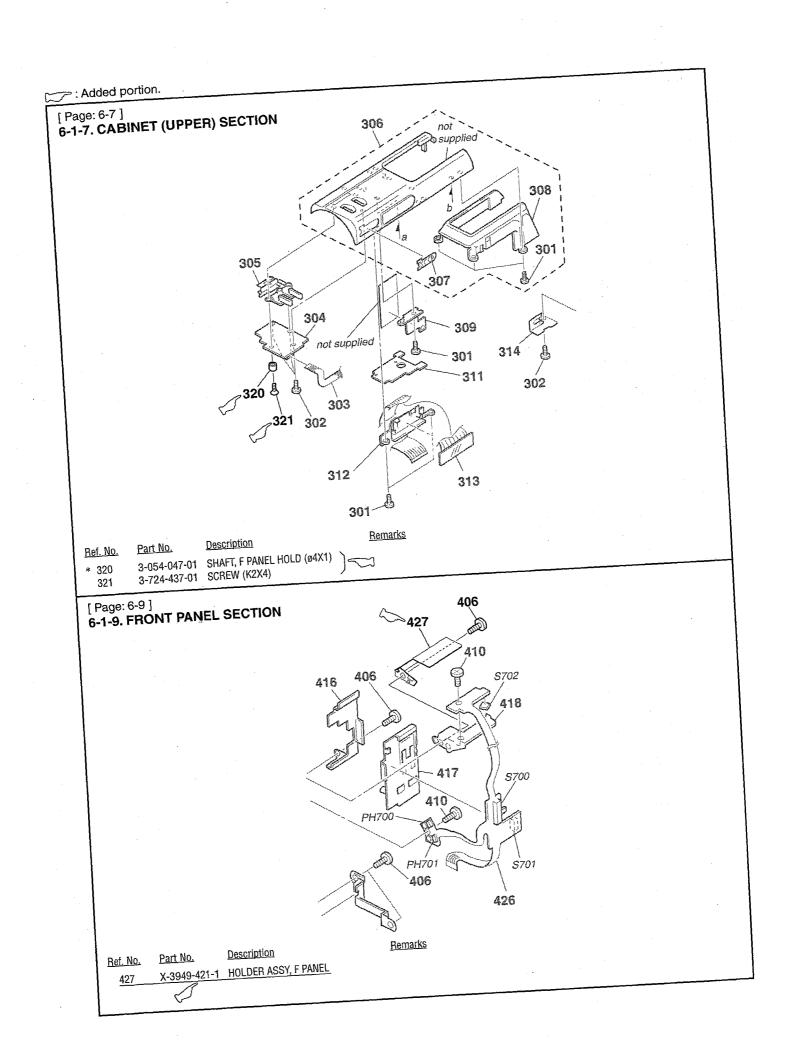
Applicable serial Nos.

Models	Serial Nos.
DSR-PD100	1000701 and higher
DSR-PD100P	undecided

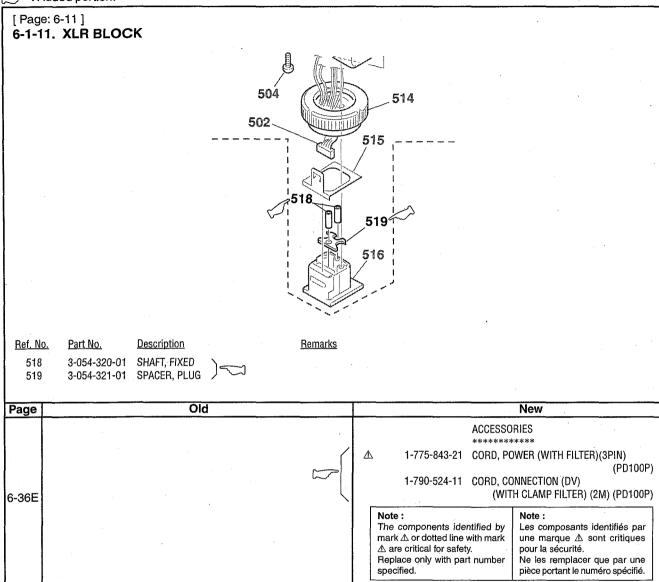
- Part number change of IC1602 on the VI-151 board.
   IC1602 : CXD3200R-T6 → SN104266PN-TEB
- ......(pages 19 and 20)
- Addition of MF ring assy ......(page 21)
- · Add and correct your service manual.



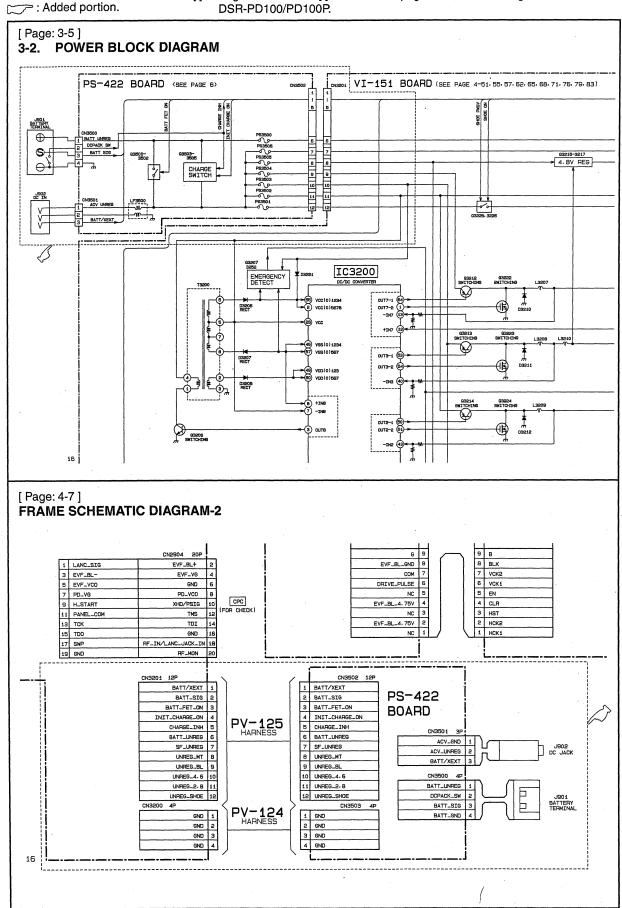


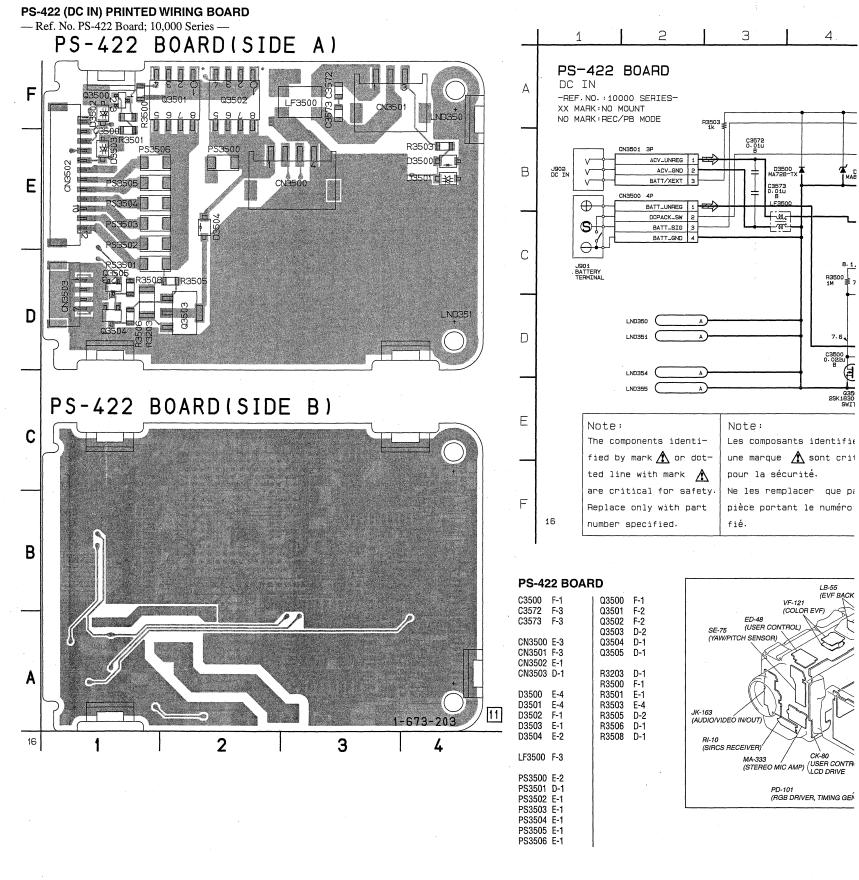




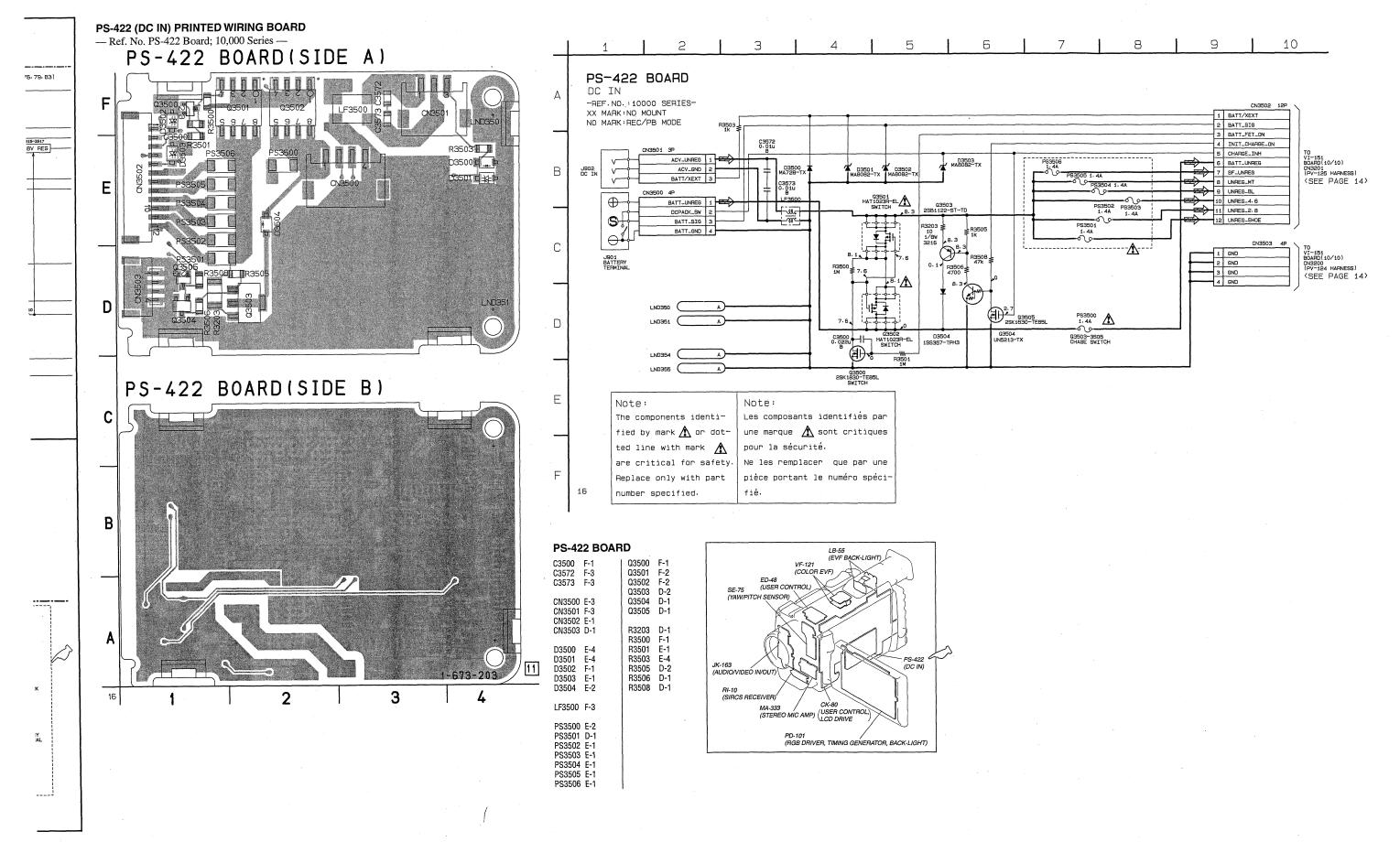


- <>: Page No. shown in <> indicates the page to refer on this Supplement-1.
- []: Page No. shown in [] indicates the page to refer on the original Service Manual DSR-PD100/PD100P.





nt-1. vice Manual



[]: Page No. shown in [] indicates the page to refer on the original Service Manual DSR-PD100/PD100P.

# [ Page: 4-90 ] PRINTED WIRING BOARD

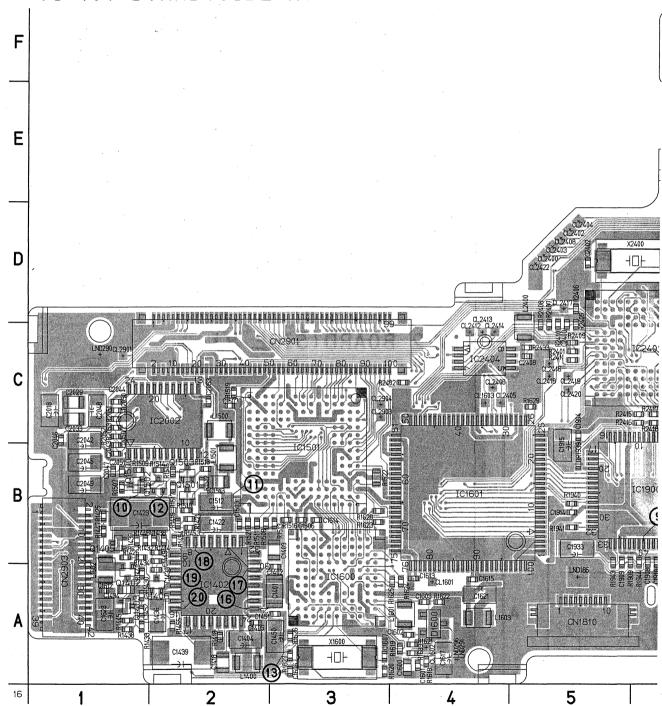
### VI-151 BOARD (SIDE A)

VI-15	1 BOAL	AD (SIDE A)				
C1401 C1402 C1404 C1405 C1409 C1418 C1422 C1423 C1423 C1423	A-3 A-2 A-2 B-3 A-2 B-2 B-1 A-2	C3205 E-9 C3221 C-7 C3236 E-8 C3237 C-7 C3244 C-7 C3245 E-7 C3246 E-7 C3248 E-8 C3249 E-8 C3255 E-9	03227 E- 03231 E- 03234 C- 03235 E- 03236 D- 03238 E- 03239 D- 03240 D- 03241 D-	-9 -7 -7 -7 -7 -7 -7	R2421 R2422 R2423 R2424 R2425 R2426 R2427 R2428 R2429 R2430	C C C D C D
C1423 C1433	B-1 A-2	C3248 E-8 C3249 E-8	Q3240 D-	77 22221111211111111222121212232232223443443443456555666611111545555556666	R2428 R2429	C-I
C2588 C2589	B-8 B-7	Q3225 C-7 Q3226 C-7	R2419 C- R2420 C-			

VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, IR TRANSMITTER, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRII

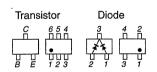
— Ref. No. VI-151 Board; 10,000 Series —

## VI-151 BOARD(SIDE A)

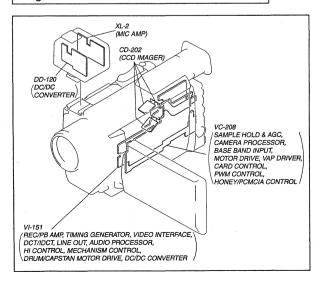


#### For printed wiring boards

- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts



There are few cases that the part printed on this diagram isn't mounted in this model.

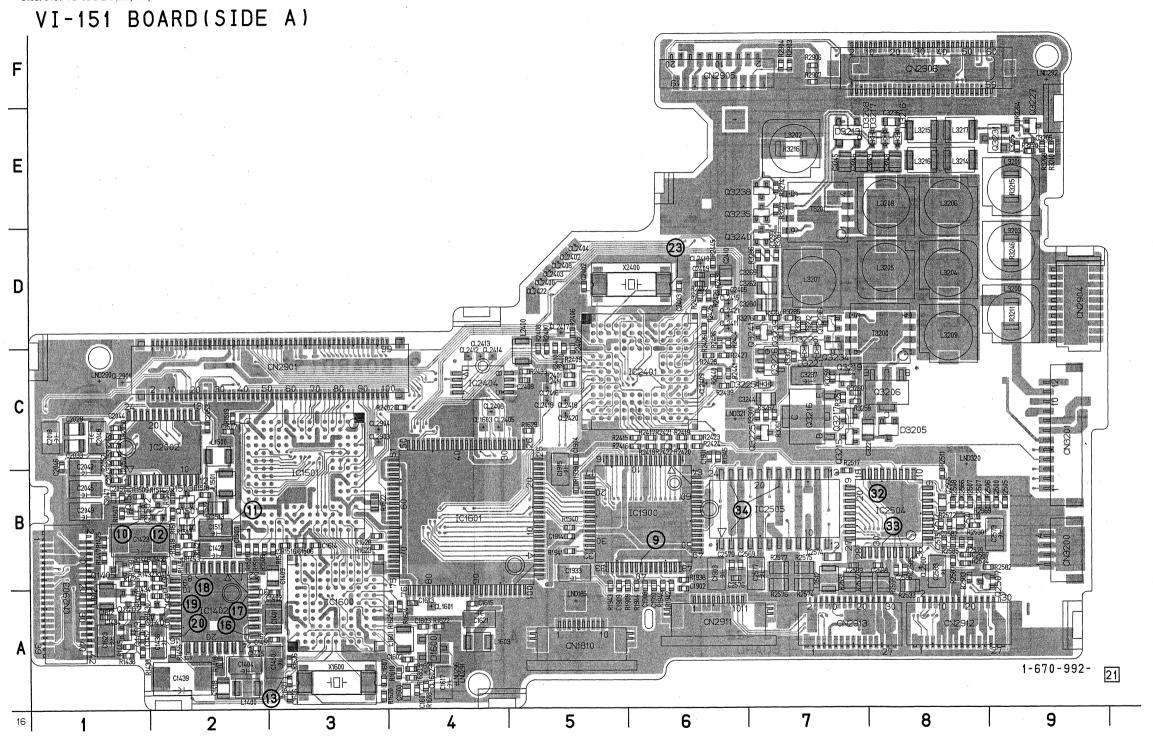


#### DARD (SIDE A)

R2421 C-6 R2422 C-6 R2423 C-6 R2424 C-6 R2425 D-6 R2426 D-6 Q3227 Q3231 Q3234 E-9 E-9 C-7 C3205 C3221 C-7 C3236 E-8 C3237 C-7 C3244 C-7 C3245 E-7 C3246 E-7 Q3235 Q3236 D-7 Q3238 E-7 Q3239 D-7 R2427 C-6 R2428 C-6 R2429 D-6 R2430 D-6 Q3240 D-7 Q3241 D-7 C3248 C3249 E-8 C3255 E-9 C3260 D-7 C3262 D-7 R1414 B-2 R2432 R1414 B-2 R1418 A-2 R1419 B-2 R1421 B-2 R1425 B-1 R2433 C-5 R2434 D-6 R2436 D-6 C3269 D-7 R2439 C-6 CN1810 A-5 R2440 C-6 R2441 C-6 R2442 D-6 R2445 D-6 CN2901 C-2 R1426 CN2903 A-R1430 R1432 B-2 R1433 A-1 CN2904 D-9 CN2905 F-6 CN2906 F-8 R2505 B-9
R2506 B-8
R2507 B-8
R2508 B-8
R2517 B-7
R2530 B-8
R2531 A-7
R2533 A-8
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R3262 C-7
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R3268 E-9
R3270 E-9
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R2402 C-4
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R2406 D-5
R2408 C-5
R2409 C-5
R2401 C-5
R2411 C-5
R2411 C-6
R2416 C-6
R2416 C-6 Q1402 Q1402 A-1
Q1403 A-1
Q1405 B-1
Q1406 A-2
Q1500 B-1
Q1501 B-2
Q1502 B-2
Q2507 B-8
Q3206 C-8
Q3215 C-7
Q3217 C-7
Q3219 C-7
Q3225 C-7
Q3226 C-7 T3200 D-8 T3201 E-7 X1600 A-3 X2400 D-6 R2417 C-6 R2418 C-6 R2419 C-6 R2420 C-6

VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, IR TRANSMITTER, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRING BOARD

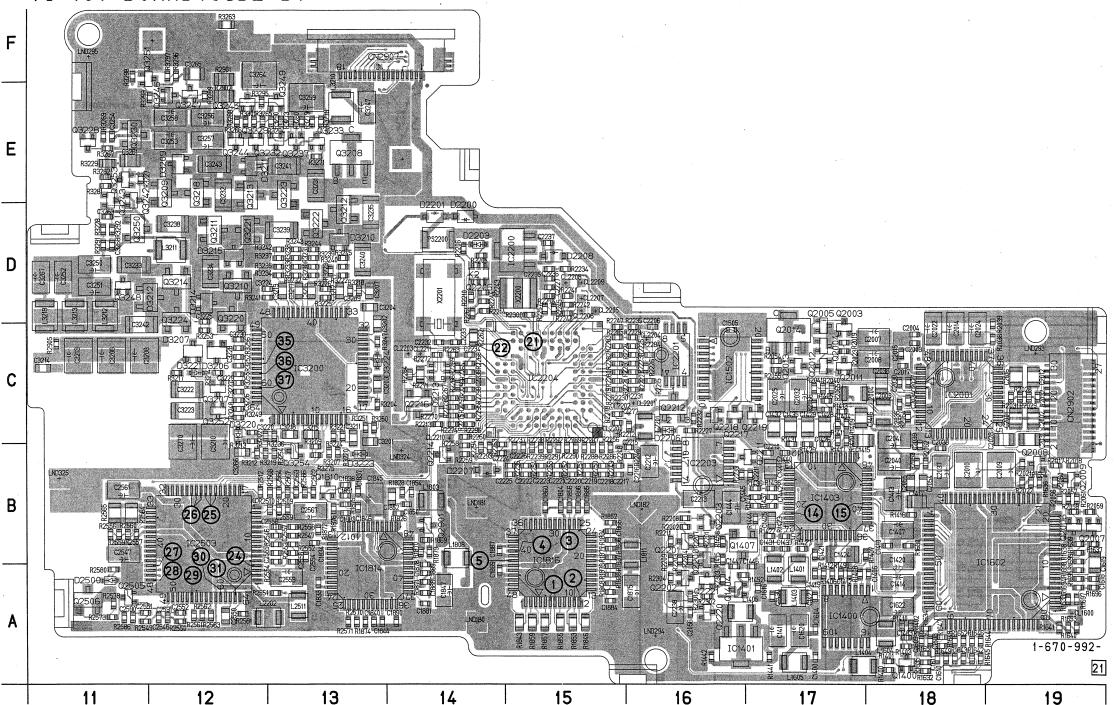
- Ref. No. VI-151 Board; 10,000 Series -



# VI-151 (REC/PB AMP, TIMING GENERATOR, VIDEO INTERFACE, DCT/IDCT, IR TRANSMITTER, AUDIO PROCESSOR, HI CONTROL, MECHANISM CONTROL, DRUM/CAPSTAN MOTOR DRIVE, DC/DC CONVERTER) PRINTED WIRING BOARD

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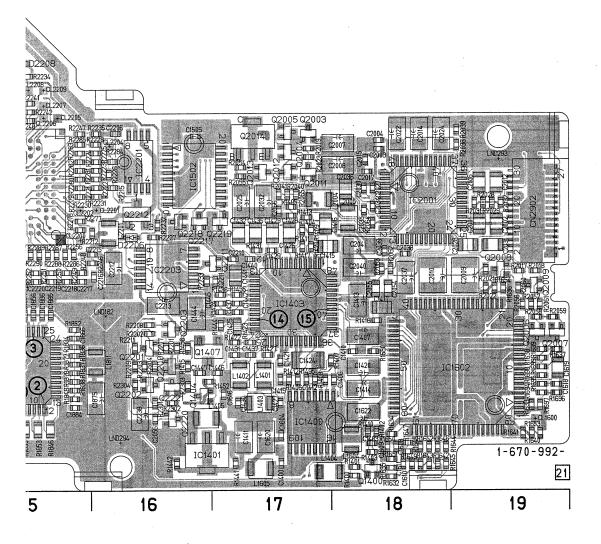
## VI-151 BOARD(SIDE B)



#### VI-151 BOARD (SIDE B)

1400	A-17	C2016 C-19	C3220 C-12	L1605 A-17	l R140
1403	A-18	C2017 C-18	C3222 C-12	L1803 B-14	R140
1406 1407	A-18 B-18	C2022 C-18 C2024 C-18	C3223 C-12 C3224 D-13	L1808 B-14 L1811 B-16	R140 R140
1410	B-18	C2025 C-17	C3225 D-12	L2004 C-17	R140
1411	A-17	C2027 C-18	C3226 C-12	L2005 C-18	R140
1412 1413	A-17 B-18	C2028 C-19 C2030 C-18	C3227 C-12 C3228 C-12	L2201 C-16 L2202 A-13	R140 R140
1414	A-18	C2031 C-19	C3229 C-12	L2511 A-13	R140
1415	C-17	C2032 C-17	C3230 C-12	L3210 E-13	R140
1416 1417	C-17 B-18	C2034 C-18 C2035 C-18	C3231 E-13 C3232 E-12	L3211 D-12 L3212 D-11	R141 R141
1419	A-17	C2036 C-18	C3233 D-11	L3213 D-11	R141
1420	B-18	C2037 B-18	C3234 D-12	L3218 D-11	R141
1421 1424	B-17 B-17	C2038 B-18 C2039 B-18	C3235 D-13 C3238 D-12	PS2200 D-14	R141
1425	B-17	C2040 B-18	C3239 D-13	1 32200 D-14	R141
1426	B-17	C2041 C-18	C3240 D-13	Q1400 A-18	R142
1427 1428	A-17 C-17	C2054 B-18 C2055 B-18	C3241 E-13 C3242 C-11	Q1404 A-16 Q1407 B-16	R142 R142
1429	C-17	C2056 A-16	C3243 E-12	Q1810 B-13	R142
1430	A-17	C2206 C-16	C3247 E-13	Q2003 C-17	R142
1431 1432	B-17 C-17	C2210 B-17 C2211 B-17	C3250 D-11 C3251 D-11	Q2004 C-17 Q2005 C-17	R142 R143
1435	C-17	C2212 B-16	C3252 D-11	Q2006 B-19	R143
1437 1440	B-17 B-17	C2213 B-16 C2215 B-16	C3253 E-12	Q2007 B-19 Q2008 B-19	R143 R143
1441	B-17	C2216 B-16	C3254 E-11 C3256 E-12	Q2008 B-19 Q2009 B-19	R144
1442	B-17	C2217 B-15	C3257 E-12	Q2011 C-17	R144
1444 1445	B-16 B-17	C2218 B-15 C2219 B-15	C3258 E-12 C3259 E-13	Q2012 C-17 Q2013 C-17	R144 R145
1446	A-17	C2220 B-15	C3261 E-11	Q2014 C-17	R145
1447	A-16	C2221 B-15	C3263 D-11	Q2200 B-16	R149
1505 1604	C-16 A-17	C2222 B-15 C2223 B-15	C3264 F-12 C3265 F-12	Q2201 B-16 Q2202 A-16	R163 R163
1608	A-18	C2224 B-14	C3266 B-12	Q2203 B-16	R163
1609	A-18	C2225 B-15	C3267 D-11	Q2206 D-14	R163
1610 1611	A-18 A-18	C2226 B-15 C2227 D-15	C3268 D-11 C3270 C-12	Q2211 B-17 Q2212 C-16	R163 R163
1616	A-17	C2232 C-14		Q2213 C-14	R163
1618 1619	A-19 A-19	C2233 C-14 C2234 C-14	CN2902 C-19 CN2907 F-13	Q2214 B-14 Q2216 C-14	R163 R163
1620	A-19 A-17	C2235 D-15	GN2907 F-13	Q2217 C-16	R164
1622	A-18	C2236 D-15	D2200 D-14	Q2218 C-16	R164
1804 1833	B-15 A-13	C2237 D-15 C2238 A-16	D2201 D-14 D2203 D-14	Q2219 C-17 Q2220 A-16	R164 R164
1834	B-13	C2239 C-14	D2206 C-16	Q2221 A-16	R164
1837	B-13	C2546 A-12	D2207 B-14	Q2505 A-11	R164
1838 1840	B-13 A-13	C2547 B-11 C2550 A-12	D2208 D-15 D2500 A-11	Q2506 A-11 Q2901 B-14	R164 R164
1844	A-13	C2551 A-11	D3206 C-12	Q3207 C-12	R164
1845 1846	B-13 B-13	C2552 A-12 C2553 A-13	D3207 C-12 D3209 E-12	Q3208 E-13 Q3209 E-12	R164 R165
1847	A-14	C2554 B-13	D3210 D-13	Q3210 D-12	R165
1850	B-14	C2555 B-13	D3211 E-12	Q3211 D-12	R165
1852 1854	B-14 B-14	C2556 B-13 C2557 B-13	D3212 D-12 D3214 D-12	Q3212 D-13 Q3213 E-12	R165 R165
1856	B-15	C2558 B-13	D3215 D-12	Q3214 D-12	R169
1860 1866	B-15 B-15	C2559 B-13 C2561 B-11	D3220 C-12 D3221 C-12	Q3218 E-12 Q3220 D-12	R169
1869	A-14	C2562 B-13	D3223 B-13	Q3221 D-12	R169 R169
1875	A-16	C2563 B-13	D3224 C-13	Q3222 D-13	R169
1878 1881	A-14 A-14	C2564 B-13 C2567 B-13	IC1400 A-17	Q3223 E-13 Q3224 D-12	R169 R182
1883	B-13	C2590 A-11	IC1401 A-16	Q3228 E-11	R182
1884	A-15	C2591 A-12	IC1403 B-17	Q3229 E-12	R183
1885 1886	B-15 B-15	C3201 C-13 C3202 C-13	IC1502 C-16 IC1602 B-19	Q3230 E-11 Q3232 E-13	R183 R183
1887	B-14	C3203 C-13	IC1814 A-13	Q3233 E-13	R183
1888 1889	A-14 A-14	C3204 D-13 C3206 C-11	IC1816 B-15 IC2001 C-18	Q3237 E-13 Q3242 E-11	R184 R184
1890	A-14 A-14	C3207 D-13	IC2200 D-15	Q3243 E-11	R184
1891	B-13	C3208 C-11	IC2201 C-16	Q3244 E-12	R185
2001 2002	C-19 C-19	C3209 D-13 C3210 C-12	IC2203 B-16 IC2204 C-15	Q3245 E-12 Q3246 E-12	R185 R185
2002	C-18	C3210 C-12	IC2503 B-12	Q3246 E-12 Q3247 E-12	R185
2004	C-18	C3212 D-13	IC3200 C-13	Q3248 D-11	R185
2007 2008	C-18 C-18	C3213 C-11 C3214 C-11	L1401 A-17	Q3249 E-13 Q3250 D-11	R186 R187
2009	B-19	C3215 C-13	L1402 A-17	Q3251 F-11	R187
2010	B-18	C3216 D-13	L1403 A-17	Q3252 C-12	R187
2012 2014	C-19 C-18	C3217 D-13 C3218 C-13	L1404 A-17 L1405 A-16	Q3253 E-11 Q3254 B-13	R187 R187
2015	C-18	C3219 D-13	L1604 A-18		R187

ROCESSOR, PRINTED WIRING BOARD



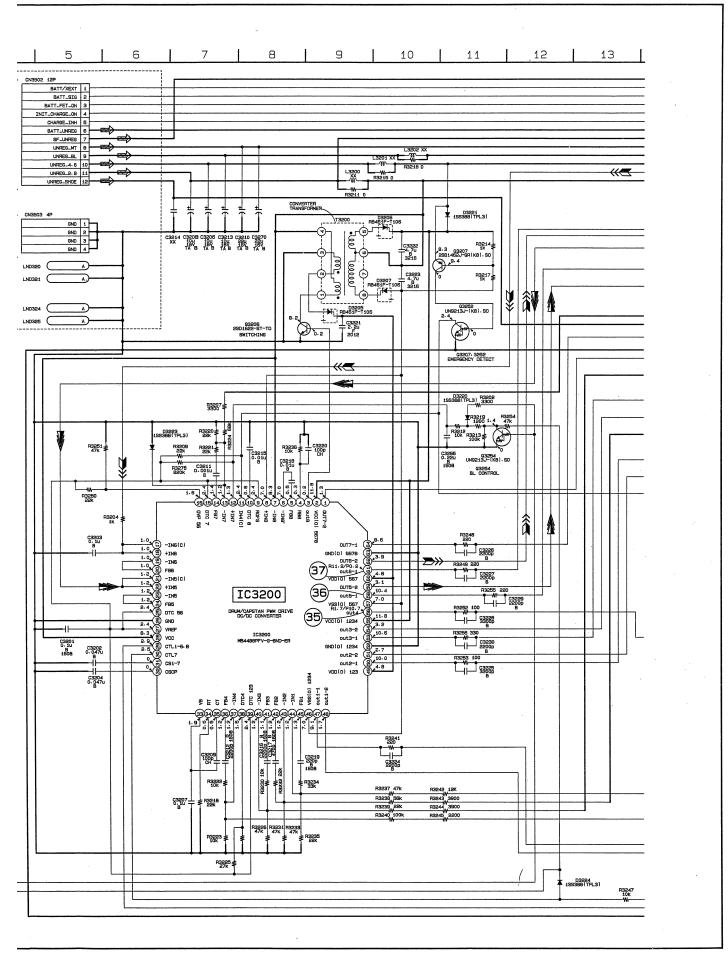
'I-151	BOA	ARD	(SIDE	E B)
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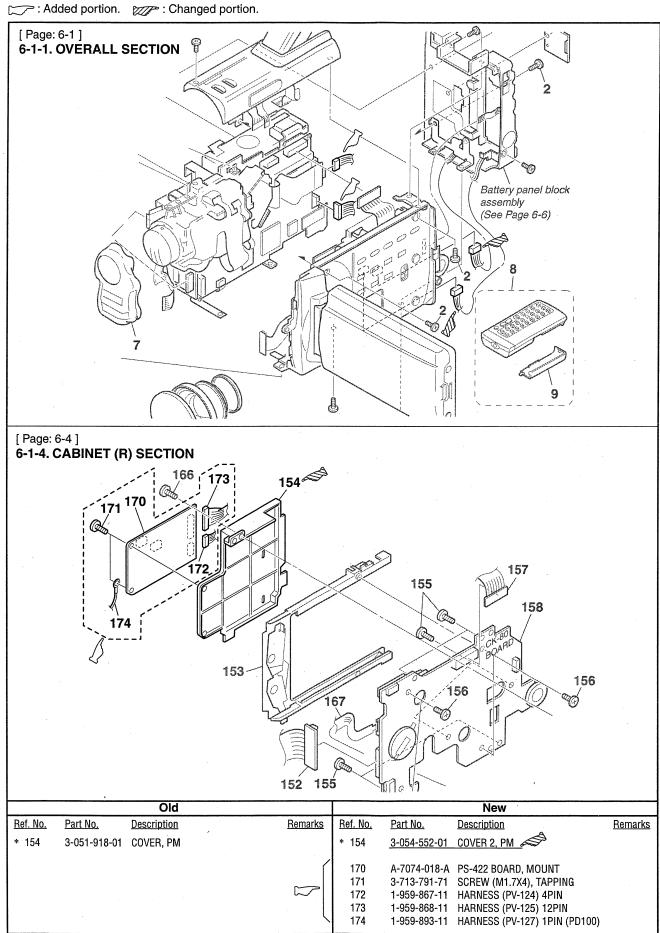
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B-14 L1804 C-17 L2005 C-18 L2201 C-16 L2202 A-13 L2511 A-13 L3210 E-13 L3211 D-12 L3212 D-11 L3213 D-11 L3218 D-11  PS2200 D-14  Q1400 A-18 Q1404 A-16 Q1407 B-16 Q1810 B-13 Q2003 C-17 Q2004 C-17 Q2006 B-19 Q2007 B-19 Q2007 B-19 Q2008 B-19 Q2008 B-19 Q2009 B-19 Q2009 B-19 Q2009 B-19 Q2009 B-19 Q2001 C-17 Q2014 C-17 Q2012 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2015 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2202 A-16 Q2203 B-16 Q2203 B-16 Q2204 B-16 Q2204 B-16 Q2205 D-14 Q2211 B-17 Q2212 C-16 Q2213 C-14 Q2214 B-14 Q2216 C-14 Q2217 C-16 Q2213 C-16 Q2203 B-16 Q2203 B-16 Q2204 B-16 Q2201 B-17 Q2210 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3213 E-12 Q3214 D-12 Q3218 E-12 Q3210 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3223 E-13 Q3224 D-12 Q3214 D-12 Q3218 E-12 Q3214 D-12 Q3218 E-12 Q3215 D-12 Q3216 E-11 Q3226 E-11 Q3227 D-12 Q3217 D-12 Q3218 E-12 Q3218 E-12 Q3218 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3221 D-12 Q3218 E-12 Q3218 E-12 Q3218 E-12 Q3219 C-17 Q3228 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3218 E-12 Q3218 E-12 Q3218 E-12 Q3219 D-12 Q3219 D-12 Q3210 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3223 E-13 Q3237 E-11 Q3248 E-11 Q3249 E-11 Q3249 E-11 Q3249 E-11 Q3249 E-11 Q3250 B-11 Q3251 E-11 Q3251 E-11 Q3252 B-11 Q3253 E-11 Q3254 E-12 Q3246 E-12 Q3247 E-12 Q3248 B-11 Q3259 E-11 Q3259 E-11 Q3250 B-11 Q3251 E-11 Q3251 E-11 Q3252 B-11 Q3253 E-11 Q3254 B-13 Q3254 B-13</th> <th>R1400 A-18 R1401 A-18 R1402 A-18 R1403 A-18 R1404 C-17 R1405 C-17 R1406 A-17 R1407 B-18 R1408 A-17 R1409 C-17 R1413 C-17 R1413 C-17 R1413 C-17 R1413 C-17 R1413 B-16 R1414 B-17 R1422 B-17 R1423 B-17 R1424 B-17 R1424 B-17 R1425 B-17 R1426 B-18 R1417 C-17 R1427 B-17 R1428 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1420 B-17 R1420 B-17 R1421 B-17 R1421 B-17 R1422 B-17 R1423 B-17 R1424 B-17 R1425 B-17 R1435 B-17 R1436 B-19 R1437 B-19 R1437 B-19 R1438 B-19 R1634 A-18 R1635 A-18 R1636 B-19 R1637 B-19 R1638 B-19 R1639 B-19 R1630 B-18 R1631 A-18 R1636 B-19 R1637 B-19 R1638 B-19 R1639 B-19 R1630 A-18 R1631 A-18 R1644 A-18 R1645 A-18 R1645 A-18 R1646 A-18 R1647 A-18 R1648 B-19 R1659 A-19 R1699 B-19 R1690 A-19 /th> <th>R1877 B-15 R1878 A-15 R1878 B-14 R2017 B-19 R2018 B-19 R2019 C-17 R2021 B-19 R2022 B-19 R2023 C-17 R2023 C-19 R2031 C-19 R2032 C-19 R2032 C-19 R2032 C-19 R2038 C-19 R2038 C-19 R2038 C-17 R2056 B-19 R2057 B-19 R2056 B-19 R2056 B-19 R2057 B-19 R2058 B-19 R2058 B-19 R2060 B-19 R2060 B-19 R2060 B-19 R2061 B-19 R2061 B-19 R2062 B-16 R2063 B-18 R2064 C-18 R2065 C-17 R2066 C-17 R2066 C-17 R2061 B-19 R2061 B-19 R2062 B-16 R2023 B-16 R2020 B-16 R20203 B-16 R20204 B-16 R20205 D-14 R2010 B-16 R20205 D-14 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 D-15 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2024 D-15 R2024 D-15 R2024 D-15 R2025 B-15 R2026 C-14 R206 C-14</th> <th>R2262 C-14 R2263 C-14 R2263 C-14 R2265 C-14 R2266 C-14 R2266 C-14 R2267 C-14 R2269 C-14 R2270 C-14 R2271 C-14 R2271 C-14 R2272 C-14 R2273 C-14 R2273 C-14 R2275 C-15 R2277 C-15 R2278 C-15 R2278 C-15 R2281 C-15 R2282 C-15 R2282 C-15 R2283 C-15 R2283 C-15 R2284 C-16 R2285 C-15 R2288 B-15 R2288 B-15 R2289 B-15 R2280 B-15 R2280 B-15 R2280 B-15 R2281 B-15 R2281 B-15 R2282 C-16 R2285 C-16 R2285 C-16 R2285 B-17 R2286 B-17 R2288 B-18 R2290 B-15 R2290 B-15 R2290 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2292 B-15 R2293 B-14 R2290 C-14 R2290 C-14 R2290 C-14 R2290 C-14 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2290 B-15 R2291 B-15 R2290 B-11 R2296 C-14 R2296 C-14 R2297 C-14 R2298 C-14 R2298 C-14 R2298 C-14 R2298 C-14 R2298 B-11 R2509 B-11 R2500 B-11 R2501 B-13 R2510 B-13 R2510 B-13 R2551 B-13 R2552 B-11 R2550 A-12 R2561 A-12 R2561 A-12 R2563 A-12 R2563 A-12 R2564 B-13 R2557 B-11 R2558 B-13 R2559 B-11 R2550 B-11 R2550 B-11 R2550 B-11 R2550 A-12 R2561 A-12 R2561 A-12 R2562 B-13 R2570 A-13 R2571 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 B-13 R2570 A-13 R2571 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 B-13 R2570 A-13 /th> <th>  R3217   C-12   R3218   D-13   R3221   C-13   R3222   D-13   R3224   C-13   R3225   D-13   R3226   D-11   R3229   E-11   R3230   D-13   R3231   D-13   R3241   D-13   R3242   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3250   C-12   R3250   C-13   R3275   B-13   R3275   B-13   R3275   B-13   R3275   B-13   R3278   E-13   R3278   E-13   R3291   D-11   R3293   E-12   R3290   E-13   R3291   D-11   R3293   E-12   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-12   R3290   E-13   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R329</th>	C2016	C3220	L1605 A-17 L1803 B-14 L1803 B-14 L1803 B-14 L1804 C-17 L2005 C-18 L2201 C-16 L2202 A-13 L2511 A-13 L3210 E-13 L3211 D-12 L3212 D-11 L3213 D-11 L3218 D-11  PS2200 D-14  Q1400 A-18 Q1404 A-16 Q1407 B-16 Q1810 B-13 Q2003 C-17 Q2004 C-17 Q2006 B-19 Q2007 B-19 Q2007 B-19 Q2008 B-19 Q2008 B-19 Q2009 B-19 Q2009 B-19 Q2009 B-19 Q2009 B-19 Q2001 C-17 Q2014 C-17 Q2012 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2014 C-17 Q2015 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2201 B-16 Q2202 A-16 Q2203 B-16 Q2203 B-16 Q2204 B-16 Q2204 B-16 Q2205 D-14 Q2211 B-17 Q2212 C-16 Q2213 C-14 Q2214 B-14 Q2216 C-14 Q2217 C-16 Q2213 C-16 Q2203 B-16 Q2203 B-16 Q2204 B-16 Q2201 B-17 Q2210 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3213 E-12 Q3214 D-12 Q3218 E-12 Q3210 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3223 E-13 Q3224 D-12 Q3214 D-12 Q3218 E-12 Q3214 D-12 Q3218 E-12 Q3215 D-12 Q3216 E-11 Q3226 E-11 Q3227 D-12 Q3217 D-12 Q3218 E-12 Q3218 E-12 Q3218 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3221 D-12 Q3218 E-12 Q3218 E-12 Q3218 E-12 Q3219 C-17 Q3228 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3229 E-11 Q3218 E-12 Q3218 E-12 Q3218 E-12 Q3219 D-12 Q3219 D-12 Q3210 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3211 D-12 Q3212 D-13 Q3223 E-13 Q3237 E-11 Q3248 E-11 Q3249 E-11 Q3249 E-11 Q3249 E-11 Q3249 E-11 Q3250 B-11 Q3251 E-11 Q3251 E-11 Q3252 B-11 Q3253 E-11 Q3254 E-12 Q3246 E-12 Q3247 E-12 Q3248 B-11 Q3259 E-11 Q3259 E-11 Q3250 B-11 Q3251 E-11 Q3251 E-11 Q3252 B-11 Q3253 E-11 Q3254 B-13 Q3254 B-13	R1400 A-18 R1401 A-18 R1402 A-18 R1403 A-18 R1404 C-17 R1405 C-17 R1406 A-17 R1407 B-18 R1408 A-17 R1409 C-17 R1413 C-17 R1413 C-17 R1413 C-17 R1413 C-17 R1413 B-16 R1414 B-17 R1422 B-17 R1423 B-17 R1424 B-17 R1424 B-17 R1425 B-17 R1426 B-18 R1417 C-17 R1427 B-17 R1428 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1429 B-17 R1420 B-17 R1420 B-17 R1421 B-17 R1421 B-17 R1422 B-17 R1423 B-17 R1424 B-17 R1425 B-17 R1435 B-17 R1436 B-19 R1437 B-19 R1437 B-19 R1438 B-19 R1634 A-18 R1635 A-18 R1636 B-19 R1637 B-19 R1638 B-19 R1639 B-19 R1630 B-18 R1631 A-18 R1636 B-19 R1637 B-19 R1638 B-19 R1639 B-19 R1630 A-18 R1631 A-18 R1644 A-18 R1645 A-18 R1645 A-18 R1646 A-18 R1647 A-18 R1648 B-19 R1659 A-19 R1699 B-19 R1690 A-19	R1877 B-15 R1878 A-15 R1878 B-14 R2017 B-19 R2018 B-19 R2019 C-17 R2021 B-19 R2022 B-19 R2023 C-17 R2023 C-19 R2031 C-19 R2032 C-19 R2032 C-19 R2032 C-19 R2038 C-19 R2038 C-19 R2038 C-17 R2056 B-19 R2057 B-19 R2056 B-19 R2056 B-19 R2057 B-19 R2058 B-19 R2058 B-19 R2060 B-19 R2060 B-19 R2060 B-19 R2061 B-19 R2061 B-19 R2062 B-16 R2063 B-18 R2064 C-18 R2065 C-17 R2066 C-17 R2066 C-17 R2061 B-19 R2061 B-19 R2062 B-16 R2023 B-16 R2020 B-16 R20203 B-16 R20204 B-16 R20205 D-14 R2010 B-16 R20205 D-14 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 B-16 R2010 D-14 R2011 D-15 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2023 C-16 R2024 D-15 R2024 D-15 R2024 D-15 R2025 B-15 R2026 C-14 R206 C-14	R2262 C-14 R2263 C-14 R2263 C-14 R2265 C-14 R2266 C-14 R2266 C-14 R2267 C-14 R2269 C-14 R2270 C-14 R2271 C-14 R2271 C-14 R2272 C-14 R2273 C-14 R2273 C-14 R2275 C-15 R2277 C-15 R2278 C-15 R2278 C-15 R2281 C-15 R2282 C-15 R2282 C-15 R2283 C-15 R2283 C-15 R2284 C-16 R2285 C-15 R2288 B-15 R2288 B-15 R2289 B-15 R2280 B-15 R2280 B-15 R2280 B-15 R2281 B-15 R2281 B-15 R2282 C-16 R2285 C-16 R2285 C-16 R2285 B-17 R2286 B-17 R2288 B-18 R2290 B-15 R2290 B-15 R2290 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2292 B-15 R2293 B-14 R2290 C-14 R2290 C-14 R2290 C-14 R2290 C-14 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2291 B-15 R2290 B-15 R2291 B-15 R2290 B-11 R2296 C-14 R2296 C-14 R2297 C-14 R2298 C-14 R2298 C-14 R2298 C-14 R2298 C-14 R2298 B-11 R2509 B-11 R2500 B-11 R2501 B-13 R2510 B-13 R2510 B-13 R2551 B-13 R2552 B-11 R2550 A-12 R2561 A-12 R2561 A-12 R2563 A-12 R2563 A-12 R2564 B-13 R2557 B-11 R2558 B-13 R2559 B-11 R2550 B-11 R2550 B-11 R2550 B-11 R2550 A-12 R2561 A-12 R2561 A-12 R2562 B-13 R2570 A-13 R2571 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 B-13 R2570 A-13 R2571 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 A-11 R2580 B-13 R2570 A-13	R3217   C-12   R3218   D-13   R3221   C-13   R3222   D-13   R3224   C-13   R3225   D-13   R3226   D-11   R3229   E-11   R3230   D-13   R3231   D-13   R3241   D-13   R3242   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3245   D-13   R3250   C-12   R3250   C-13   R3275   B-13   R3275   B-13   R3275   B-13   R3275   B-13   R3278   E-13   R3278   E-13   R3291   D-11   R3293   E-12   R3290   E-13   R3291   D-11   R3293   E-12   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-13   R3290   E-12   R3290   E-13   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R3290   E-15   R3290   E-12   R3290   E-13   R3290   E-13   R3290   E-14   R3290   E-14   R3290   E-15   R329

<>: Page No. shown in <> indicates the page to refer on this Supplement-1.
[]: Page No. shown in [] indicates the page to refer on the original Service Manual : Changed portion. DSR-PD100/PD100P. [ Page: 4-83 ] SCHEMATIC DIAGRAM 9 10 11 | 12 | 13 | VI-151 BOARD(10/10)
DC/DC CONVERTER(DD BLOCK) -REF. NO. :10000 SERIES-XX MARK: NO MOUNT TO PS-422 BOARD CN3501 (SEE PAGE 7) В <del>((C</del> C3214 C3208 C3206 C3213 C3210 C3270 XX 10U 10U 10U 25U 22U TA B TA B TA B TA B TA B SEE PAGE 7 D Q3206 2SD1622-ST-TD SWITCHING Q3207-3252 EMERGENCY DETECT H3220 ≢ ₹ R3251 G3254 BL CONTROL •SIGNAL PATH OUT7OUT7OUT7OUT8-REC REC/PB PB Drum servo (speed and phase) Capstan servo (speed and phase) R3249 220 IC3200 W C3229 2200p R3252 100 11 C3228 out3-2 out3-1 GND(0) 1234 out2-2 out2-1 VDD(0) 123 C3202 0. 047u 0. 047u VB HT CT CT CT FB4 - 1N4 DTC4 123 FB3 FB3 - 1N8 FB2 - 1N8 FB2 - 1N8 FB1 VSS (0) WSS (0) out 1-1 out 1-2 out 1-2

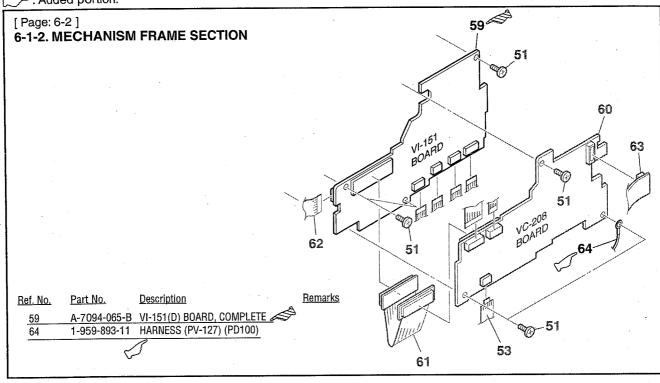
P9995\$

: Added portion. [ Page: 6-1 ] **6-1-1. OVERALL SEC**1 [ Page: 6-4 ] **6-1-4. CABINET (R) SE** Ref. No. Part No. <u>Desc</u> \* 154 3-051-918-01 COV





: Added portion.



#### 6-2. ELECTRICAL PARTS LIST

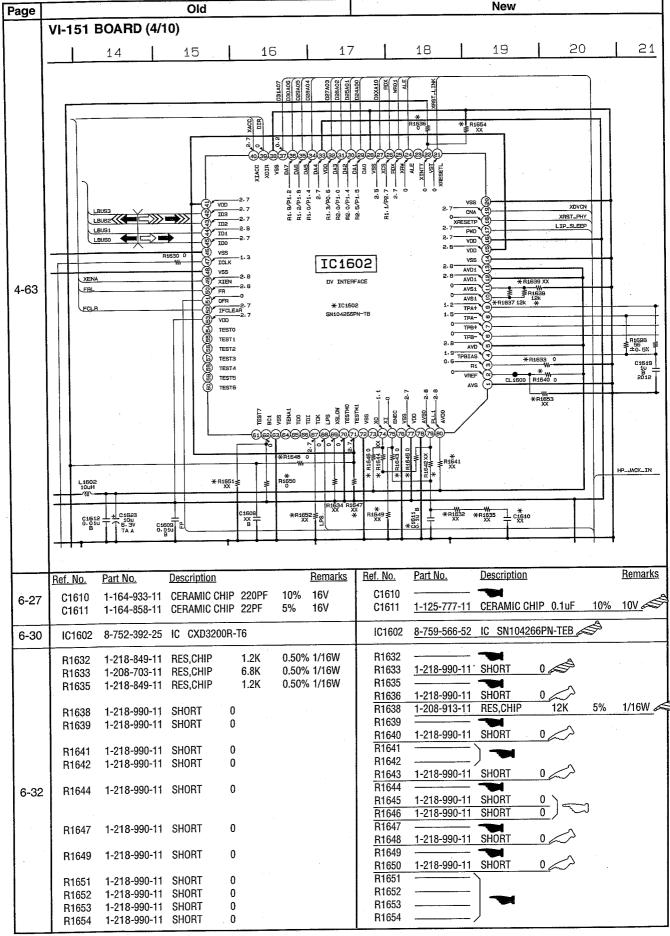
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	: Chenged portion.						Now					
Page			Old				<del> </del>			New		
	Ref. No.	Part No.	Description			<u>Remarks</u>	Re	f. No.	Part No.	Description		<u>Remarks</u>
		A-7094-065-A	VI-151(D) BOA	RD, COMPLI	ETE (F	PD100)			A-7094-065-B	VI-151(D) BOARD.	COMPLETE	
6-27		A-7094-121-A	VI-151(D) BOA	RD, COMPLI	ETE (I	PD100P)		M	P	*****		
ŭ <b></b> .			********	******	****			VIII			(Ref.No.:10,0	000 Series)
,				(Ref.No	.:10,0	00 Series)					:	
	C3200	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	7					. '
	CN3200	1-580-057-11	PIN, CONNECT	OR 4P					1-778-507-21	PIN, CONNECTOR	4P	
	CN3201		PIN, CONNECT	OR (1.5MM)	(SME	)) 3P		CN3201	1-779-064-11	PIN, CONNECTOR	12P 🔊	
6-29	D3200	8-719-421-27	DIODE MA728	3-TX			k	**		.*		
	D3201	8-719-420-14	DIODE MA808	32-TX			$  \rangle$					
	D3202	8-719-420-14	DIODE MA808									
	D3203	8-719-420-14	DIODE MA808 DIODE 1SS38				1 1					
	D3204	8-719-056-48					4					
	LF3200	1-411-957-11	FILTER, COMM	ON MODE								
	⚠ PS3200	1-533-760-21	FUSE (SMD) 1.									
	△ PS3201	1-533-760-21	FUSE (SMD) 1.									
	△ PS3202	1-533-760-21	FUSE (SMD) 1. FUSE (SMD) 1.									
	⚠ PS3203 ⚠ PS3204	1-533-760-21 1-533-760-21	FUSE (SMD) 1.									
		1-533-760-21	FUSE (SMD) 1.									
	<u> </u>	1-533-760-21	FUSE (SMD) 1.	4A								
	Q3200	8-729-024-48	TRANSISTOR									
	△ Q3201	8-729-036-43	TRANSISTOR									
6-31	∆ Q3202	8-729-036-43 8-729-804-41	TRANSISTOR TRANSISTOR									
0-31	Q3203 Q3204	8-729-804-41 8-729 <b>-</b> 037-74	TRANSISTOR			)						
						J						
	Q3205	8-729-024-48	TRANSISTOR	2SK1830-T	E85L							
	R3200	1-218-989-11			5%	1/16W						
	R3201	1-218-989-11	RES,CHIP		5%	1/16W						
6-34	R3203	1-216-150-91	RES,CHIP RES,CHIP		5% 5%	1/8W 1/16W						
0-04	R3205 R3206	1-218-953-11 1-218-961-11	RES,CHIP		5% 5%	1/16W						
	R3208	1-218-973-11	RES,CHIP		5%	1/16W						
<b></b>							1 )					
6-35	R3303	1-218-953-11	RES,CHIP	1K	5%	-1/16W	<u></u>		<del></del>			

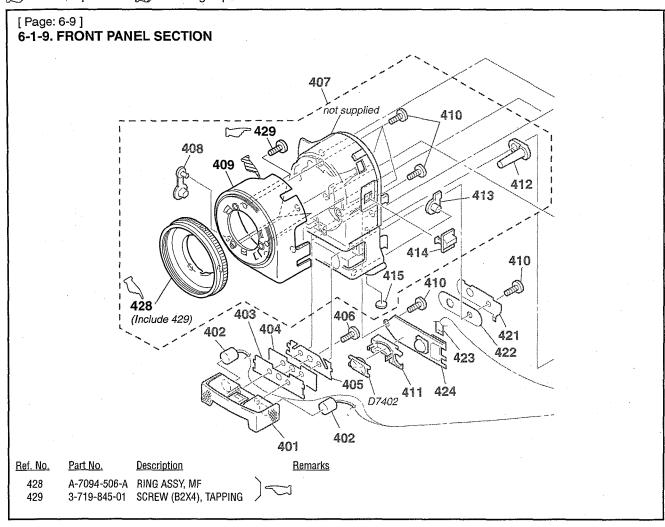
#### Added portion

	New									
Ref. No.	Part No.	Description		<u>Remarks</u>	Ref. No.	Part No.	<u>Description</u>			Remarks
	A-7074-018-A	PS-422 BOARD, COMPLETE					< TRANSISTO	R >		
		(Re	ef.No.:10	,000Series)	Q3500	8-729-024-48				
		0.10.10/300			Q3501	8-729-036-43				
		< CAPACITOR >			Q3502 Q3503	8-729-036-43 8-729-804-41				
C3500	1-164-227-11	CERAMIC CHIP 0.022uF	10%	16V	Q3503 Q3504	8-729-402-42				
C3572	1-162-970-11	CERAMIC CHIP 0.01uF	10%	16V	40004	0 720 402 42	11000001011	ONOLIO		
C3573	1-162-970-11	CERAMIC CHIP 0.01uF	10%	16V	Q3505	8-729-024-48	TRANSISTOR	2SK1830-T	E85L	
		< CONNECTOR >					< RESISTOR >	•		
CN3500	1-580-057-11	PIN. CONNECTOR 4P			R3203	1-216-150-00	RES, CHIP	10	5%	1/16W
	1-580-056-21	PIN, CONNECTOR 3P			R3500	1-216-857-11		1M	5%	1/16W
	1-779-064-11	PIN, CONNECTOR 12P			R3501	1-216-857-11		1M	5%	1/16W
CN3503	1-778-507-21	PIN, CONNECTOR 4P			R3503	1-216-821-11		1K	5%	1/16W
		< DIODE >		,	R3505 R3506	1-216-821-11 1-216-829-11		1K 4.7K	5% 5%	1/16W 1/16W
D3500	8-719-421-27	DIODE MA728			R3508	1-216-841-11		4.7 K	5%	1/16W
D3501	8-719-073-03	DIODE MA8082			110000	7 210 011 11	1120,01111		070	171011
D3502	8-719-073-03	DIODE MA8082			Note:		Note			•
D3503	8-719-073-03	DIODE MA8082				omponents iden		composants		
D3504	8-719-027-76	DIODE 1SS357-TPH3			_	∆ or dotted line w critical for safety. ce only with part	pou	marque 🛆 r la sécurité. les remplace		
		< LINE FILTER >			specifi			e portant le nu		
LF3500	1-411-957-11	FILTER, COMMON MODE								
		< FUSE >								
	1-533-760-21	FUSE (SMD) 1.4A								
	1-533-760-21	FUSE (SMD) 1.4A						**		
	1-533-760-21	FUSE (SMD) 1.4A								
	1-533-760-21	FUSE (SMD) 1.4A			:					
A P53504	1-533-760-21	FUSE (SMD) 1.4A		1						
<b>△</b> PS3505	1-533-760-21	FUSE (SMD) 1.4A								
⚠ PS3506	1-533-760-21									

: Added portion. : Chenged portion. : Deleted portion. Old VI-151 BOARD (4/10)



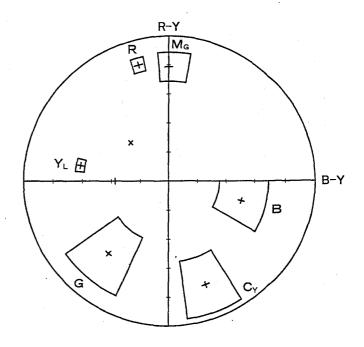
Page	New
	3. C Page Table
5-52	Address Initial value NTSC PAL  AB Fixed data-1  AC Data IC1602 of VI-151 board  00 CXD3200R-T6  02 SN104266PN-TEB  AE Fixed data-1  (Initialized data)
5-66	3-5-2. BIST Check 1-4. IC1600(SFD) BIST(PB) Check 1) Select page: 0, address: 01, and set data: 01. 2) Select page: C, address: AC, set data: 21, and press the PAUSE button. 3) Select page: C, address: AD, and note down the data. When the data is "00", change it to "01" and press the PAUSE button.  When the data is "02", change it to "03" and press the PAUSE button.  4) Select page: 3, address: 11, set data: 04, and press the PAUSE button.  12) Select page: C, address: AC, set data: 20, and press the PAUSE button.  13) Select page: C, address: AD, set the data noted down at step 3), and press the PAUSE button.  14) Select page: 0, address: 01, and set data: 00.
5-68	2-3. IC1600(SFD) BIST(REC) Check  1) Select page: 0, address: 01, and set data: 01.  2) Select page: C, address: AC, set data: 21, and press the PAUSE button.  3) Select page: C, address: AD, and note down the data.  When the data is "00", change it to "01" and press the PAUSE button.  When the data is "02", change it to "03" and press the PAUSE button.  4) Select page: 3, address: 11, set data: 04, and press the PAUSE button.  11) Select page: C, address: AC, set data: 20, and press the PAUSE button.  12) Select page: C, address: AD, set the data noted down at step 3), and press the PAUSE button.  13) Select page: 0, address: 01, and set data: 00.



## DSR-PD100/PD100P

#### **(FOR CAMERA COLOR REPRODUCTION ADJUSTMENT)**

Take a copy of CAMERA COLOR REPRODUCTION FRAME and Parts referencesheets with a clear sheet for use.



DSR-PD100/PD100P

## DSR-PD100/PD100P

## SONY

### **TECHNICAL MEMO**

No.

NPV-995022

Category SL

Date

August 24, 1999

Sony Corporation, PV Co.

Subject

Audio System Check Procedure When XLR Adapter Is Used (Addition to Service Manual)

MODEL

## DSR-PD100, DSR-PD100P, DSR-PD100A, DSR-PD100AP

[Contents]

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTER) is issued as attached as the service information.

#### AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

[Connection of Audio System Measuring Devices]
Connect the audio system measuring devices as shown in Fig. 5-3-11, and perform the checks.

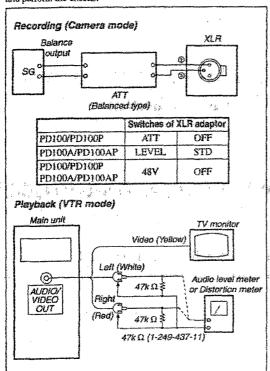


Fig. 5-3-11

#### 1. Overall Level Characteristics Check

Mode	Camera recording and playback			
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)			
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack			
Measuring Instrument	Audio level meter			
Specified Value	-7.5 ± 5.0 dBs			

- Checking Method:

  1) Input the 400 Hz, -60 dBs signal in the XLR jack.
- Record in the camera mode.
- Playback the recorded section.
- Check that the 400 Hz signal level is the specified value.

## 2. Overall Distortion Chack

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

#### Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack. 1)
- Record in the camera mode. 2)
- Playback the recorded section. 3)
- 4) Check that the distortion is the specified value.

#### 3. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the XLR jack.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

#### Checking Method:

- 1) Insert a shorting plug in the XLR jack. (Short pins-® and ③.)
- Record in the camera mode.
- Playback the recorded section.
- Check that the noise level is the specified value.

235#

# DSR-PD100/PD100P

SONY

**SERVICE MANUAL** 

US Model Canadian Model DSR-PD1000 AEP Model DSR-PD100P

## **SUPPLEMENT-2**

File this supplement-2 with the Service Manual. (99-016)

Contents: Addition of Adjusting Procedure
3-7. AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

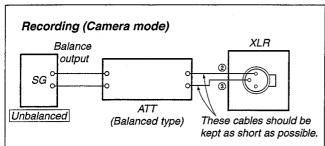
 The SERVICE MANUAL of the model DSR-PD100/PD100P that has already been published earlier, did not have the AUDIO SYSTEM CHECK for when the XLR adaptor is connected. This supplement describes the AUDIO SYSTEM CHECK procedure when signal is input using XLR adaptor.

#### []: Page No. shown in [] indicates the page to refer on the original Service manual DSR-PD100/PD100P.

## 3-7. AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR) [page 5-70]

#### [Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-12, and perform the checks.



MODEL	Switches of	XLR adaptor
DSR-PD100/PD100P	ATT	OFF
DSR-PD100A/PD100AP	LEVEL	STD
DSR-PD100/PD100P DSR-PD100A/PD100AP	48V	OFF

#### Playback (VTR mode)

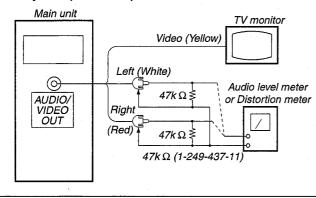


Fig. 5-3-12

#### 1. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack 2 and 3 (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 5.0 \text{ dBs}$

#### **Checking Method:**

- 1) Input the 400 Hz, -60 dBs signal in the XLR jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the 400 Hz signal level is the specified value.

#### 2. Overall Distortion Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

#### Checking Method:

- 1) Input the 400 Hz, -60 dBs signal in the XLR jack.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the distortion is the specified value.

#### 3. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Short pins-2 and 3.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

#### **Checking Method:**

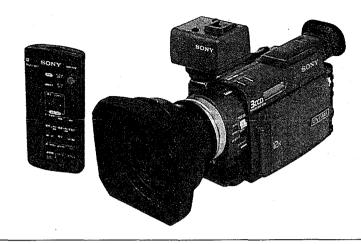
- 1) Short pins-2 and 3.
- 2) Record in the camera mode.
- 3) Playback the recorded section.
- 4) Check that the noise level is the specified value.

# DSR-PD100A/PD100AP

# **SERVICE MANUAL**







US Model Canadian Model DSR-PD100A AEP Model DSR-PD100AP

C MECHANISM

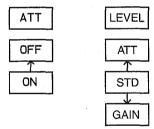
## **Differences Manual**

- DSR-PD100A/PD100AP is based on DSR-PD100/PD100P.
- This Service Manual daceribed only the difference from DSR-PD100/PD100P (US/Canadian/AEP Model) Service Manual (9-974-114-11) and Supplement-1 (9-974-114-81).

  DSR-PD100A (NTSC)
  DSR-PD100AP (PAL)

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- Main Difference
  - XLR adaptor S102 is changed.
     (ATT SWITCH → LEVEL SWITCH)



• Table for Differences of Completed Board

DSR-PD100/PD10		DSR-PD100A/PD100AP
MA-333 Board	A-7073-734-A	A-7074-072-A
XL-2 Board	A-7073-738-A	A-7074-073-A

DVCAM DIGITAL CAMCORDER





# 6. REPAIR PARTS LIST 6-1. EXPLODED VIEWS

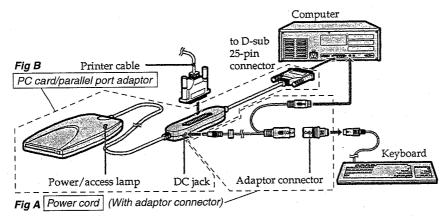
Page		DSR-PD100/PD100P			DSR-	PD100A/PD100AP
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
6-9	420	A-7073-734-A	MA-333 (D) BOARD, COMPLETE	420	A-7074-072-A	MA-333 (A) BOARD, COMPLETE
6-11	503 511 517	A-7073-738-A	, ,	503 511 517	A-7074-073-A	BOX (UPPER) ASSY, TERMINAL XL-2 (A) MOUNT XLR BLOCK ASSY

## 6-1. ELECTRICAL PARTS LIST

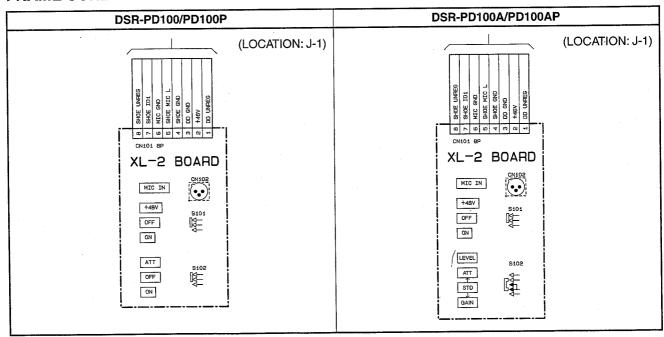
Page	DSR-PD100/PD100P					DSR-	PD100A/PD10	0AP				
	Ref. No.	Part No.	Description				Ref. No.	Part No.	Description			
			MA-333 (D) BOA						MA-333 (A) BOAI			
			< CAPACITOR >						< CAPACITOR >			
6.10	C7301 C7305	1 <b>-</b> 162-970-11	CERAMIC (CHIP) CERAMIC (CHIP) CERAMIC (CHIP)	0.01uF	10%	25V	C7301 C7305 C7310		CERAMIC (CHIP) CERAMIC (CHIP)		10% 10%	25V 16V
6-18	C7310	1-102-900-11	GERAIVIIC (CRIF)	0.0047 ui	F 1076	50V	C7358		CERAMIC (CHIP)	0.1uF	10%	50V
			<diode></diode>						< DIODE >			
	D7305	8-719-420-41	DIODE MA8082-	TX			D7305	8-719-037-03	DIODE MA8082(	K8).S0		
			< FERRITE BEAD	>					< FERRITE BEAD	> ·		
							FB732	1-500-444-11	FERRITE OuH			
			< RESISTOR >						< RESISTOR >		΄,	
6-19	R7302 R7311 R7312	1-500-444-11 1-216-839-11 1-216-836-11	FERRITE OuH METAL CHIP METAL CHIP	33K 18K	5% 5%	1/16W 1/16W	R7302 R7311 R7312	DELETE 1-216-864-11 1-216-841-11		0 47K	5% 5%	1/16W 1/16W
	R7354	1-216-845-11	METAL CHIP	100K	5%	1/16W	R7354	1-216-842-11	METAL CHIP	56K	5%	1/16W
			XL-2 BOARD, CO						XL-2 (A) BOARD,			
6-35		•	< DIODE >						< DIODE >			
	D107 D108		DIODE MA8082- DIODE MA8082-				D107 D108	8-719-073-03 8-719-073-03	DIODE MA8082 DIODE MA8082			

#### DSR-PD100A/PD100AP

Page		DSI	R-PD100/PD100P		DSR	-PD100A/PD100AP	
	Ref. No.	Part No.	<u>Description</u>	Ref. No.	Part No.	<u>Description</u>	
			< RESISTOR >			< RESISTOR >	
	R123	1-216-296-91	SHORT 0	R123 R124	1-218-833-11 1-211-987-11		.5% 1/16W .5% 1/16W
			< SWITCH >		•	< SWITCH >	
	S102	1-570-711-11	SWITCH, SLIDE (ATT ON/OFF)	S102 ·	1-762-217-21	SWITCH, SLIDE (LEVEL (ATT,	STD, GAIN))
			ACCESSORIES ************************************			ACCESSORIES *********	·
6-36E		A-7094-002-A	PC CARD ADAPTOR (MSAC-PC1) (WITH CASE)		A-7094-593-A	PC CARD ADAPTOR (MSAC-PC	C2) (WITH CASE)
	Fig A	1-959-249-11	CORD, CONNECTION  (FOR KEYBOARD, WITH ADAPTOR)	Fig A	Delete		
	Fig B	1-959-250-11	PC CARD/PARALLEL PORT ADAPTOR (MSAC-PC1)	Fig B	Delete		·
		3-865-078-11	MANUAL, INSTRUCTION (ENGLISH) (PD100/PD100P)		3-867-703-11	MANUAL, INSTRUCTION (ENG	SLISH) 0A/PD100AP)
	-	3-865-078-21	MANUAL, INSTRUCTION (FRENCH) (PD100/PD100P)		3-867-703-21	MANUAL, INSTRUCTION (FRE	
		3-865-078-31	MANUAL, INSTRUCTION (GERMAN) (PD100)		3-867-703-31	MANUAL, INSTRUCTION (GEF	RMAN) (PD100AP)
		3-865-078-41	MANUAL, INSTRUCTION (ITALIAN) (PD100P)		3-867-703-41	MANUAL, INSTRUCTION (ITAL	LIAN) (PD100AP)



[Page 4-5]
FRAME SCHEMATIC DIAGRAM-2



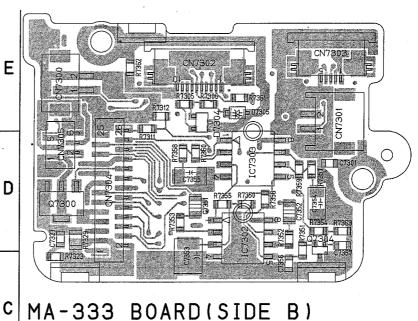
#### [Page 4-97] **PRINTED WIRING BOARD**

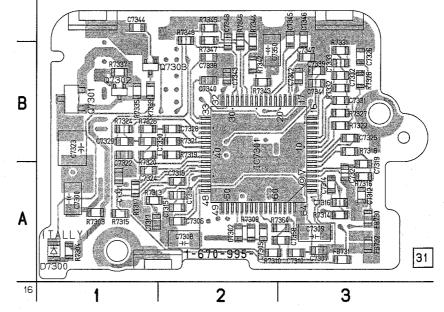
# MA-333 (STEREO MIC AMP) PRINTED WIRING BOARD — Ref. No. MA-333 Board; 10,000 Series —

MA-333 BOARD(SIDE

#### MA-333 BOARD

C7300 C7301 C7302 C7305 C7306 C7307	A-1 D-3 A-2 A-2 A-2 A-3	C7355 C7356	D-2 D-3 C-2 D-3 D-2 C-3	R7314 R7315 R7316 R7317 R7318 R7319	A-3 A-1 A-3 A-1 B-3 B-2
C7308 C7309 C7310 C7312 C7313 C7314	A-2 A-3 A-2 A-3 A-3	C7357 C7358 CN7300 CN7301 CN7302	E-3 E-2	R7320 R7321 R7322 R7323 R7324 R7326	B-1 B-2 B-3 C-1 B-1 B-3
C7315 C7316 C7317 C7318 C7319 C7320	A-2 A-3 A-1 A-2 A-3 A-3	CN7303 CN7304 CN7305 D7300 D7304	D-1	R7327 R7328 R7329 R7331 R7332 R7335	B-3 B-1 D-1 B-3 B-3 B-1
C7321 C7322 C7323 C7324 C7325	A-3 A-1 B-1 B-1 A-1 B-3	D7304 D7305 FB730 FB731 FB732	E-2 E-2 A-3 A-3 A-3	R7337 R7339 R7342 R7343 R7344	B-1 B-1 B-2 B-2 C-2
C7326 C7327 C7328 C7329 C7330	B-3 D-1 B-2 B-1 B-1	IC7301 IC7302 IC7303	B-2 D-2 D-2	R7345 R7346 R7347 R7348 R7350	C-2 C-2 B-2 C-2 D-2
C7331 C7332 C7333 C7338 C7339	B-3 B-3 B-3 B-2 B-3	Q7300 Q7301 Q7302 Q7303 Q7304	D-1 B-1 B-1 B-1 D-3	R7351 R7352 R7353 R7354 R7355	D-3 D-3 D-2 D-3 D-2
C7340 C7341 C7342 C7343 C7344 C7345	B-2 B-3 B-3 B-2 C-1 C-3	R7303 R7304 R7305 R7306 R7309	A-1 A-1 E-2 E-2 A-2	R7356 R7357 R7358 R7359 R7360 R7361	D-3 D-3 D-2 D-3 D-2 E-2
C7346 C7347 C7348 C7350	C-3 B-3 C-2 B-2	R7310 R7311 R7312 R7313	A-2 A-2 E-2 E-2 A-1	R7362 R7363 R7364	E-2 E-1 D-3 A-3

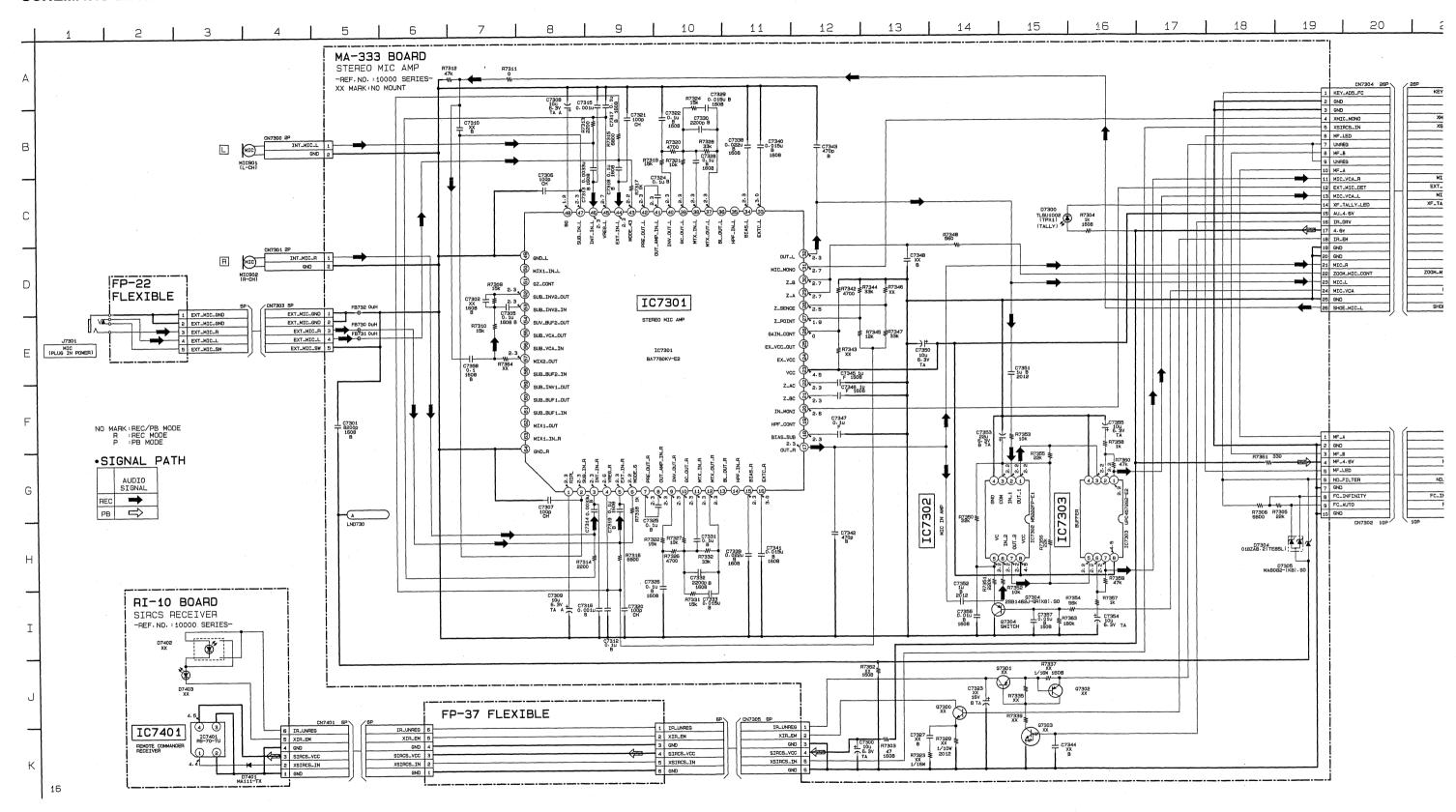


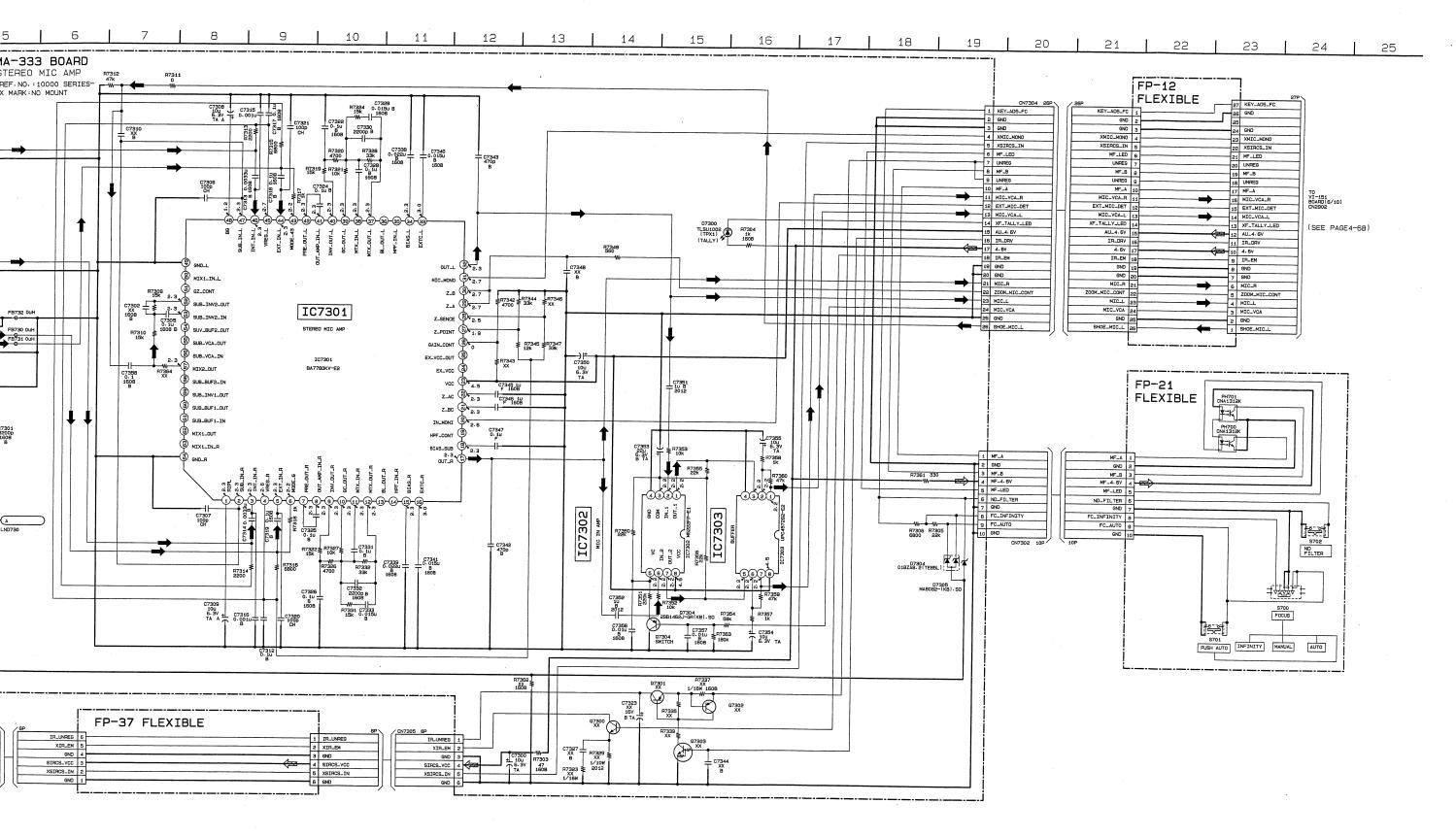


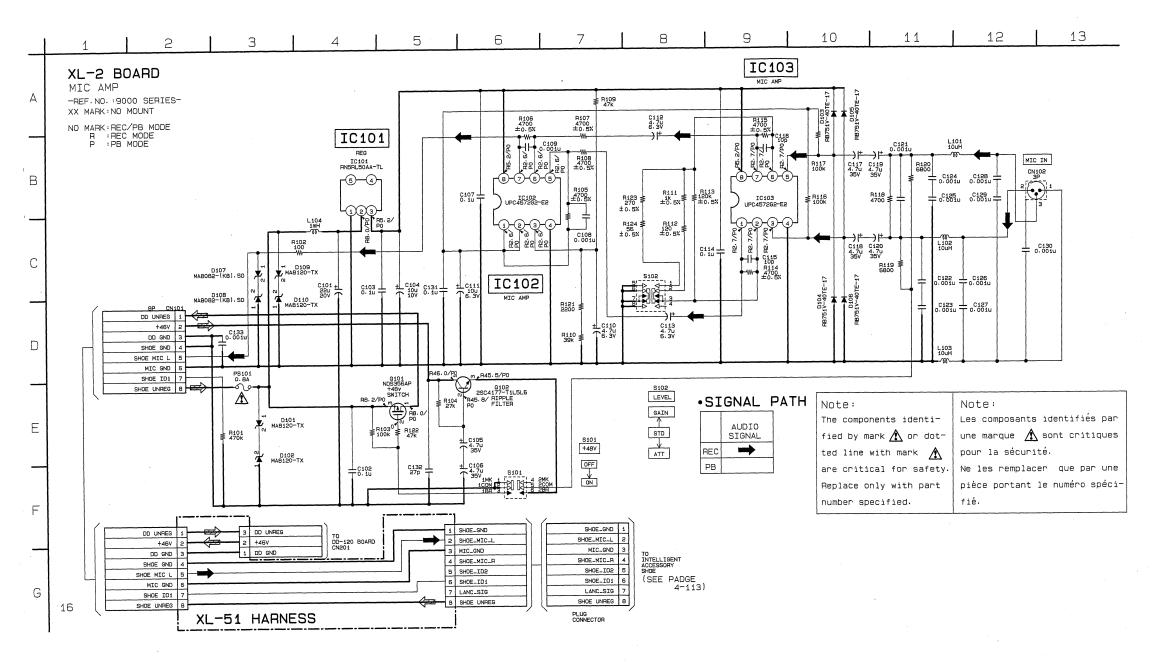
For printed wiring boards

There are few cases that the part printed on this diagram isn't mounted in this model.

[ ]: Page No. shown in [ ] indicates the page to refer on the original Service Manual DSR-PD10/PD100P.







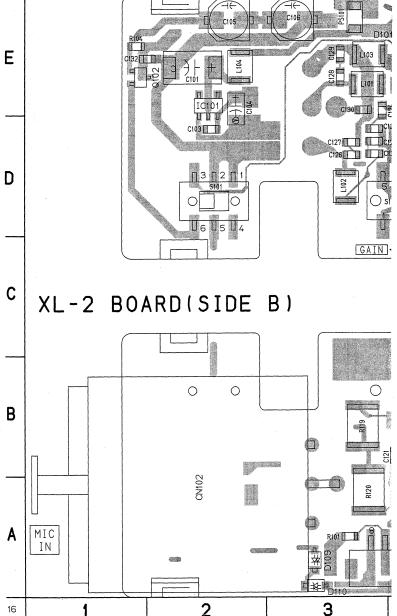
#### DSR-PD100A/PD100AP

[Page 4-131]
PRINTED WIRING BOARD

XL-2 (MIC AMP) PRINTED WIRING BOARD

- Ref. No. XL-2 Board; 9,000 Series -

XL-2 BOARD(SIDE A)



#### For printed wiring boards

9-974-179-11

There are few cases that the part printed on this diagram isn't mounted in this model.

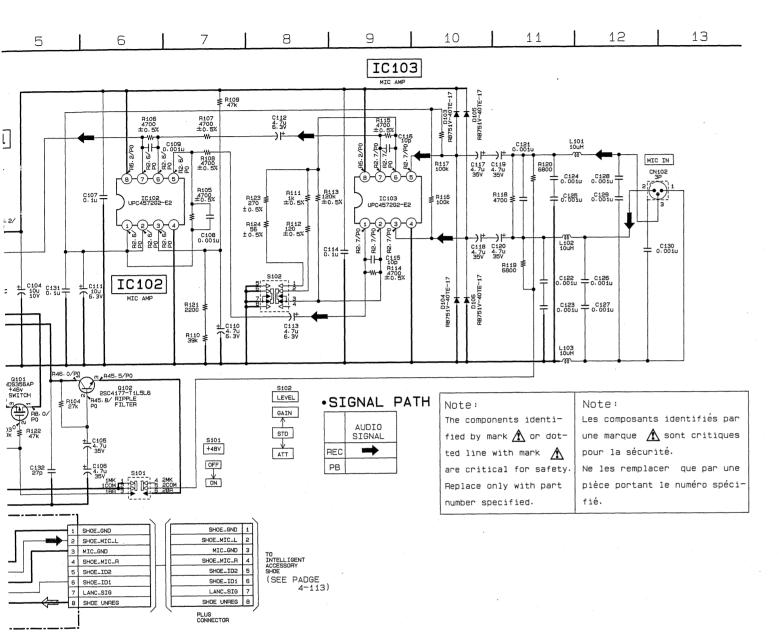
C101 C102 C103 C104 C105 C106 C107 C108 C109 C110 C111 C112 C113	E-2 E-4 D-2 E-2 E-3 A-5 A-5 A-5 B-5 B-4 D-4	C11! C12: C12: C12: C12: C12: C12: C12: C12:
		C132
C115 C116	B-4 A-4	C13(
C117	E-4	CN1
C118	D-4	CN1

XL-2 BOARD

#### Sony Corporation

MIC AMP

XL-2

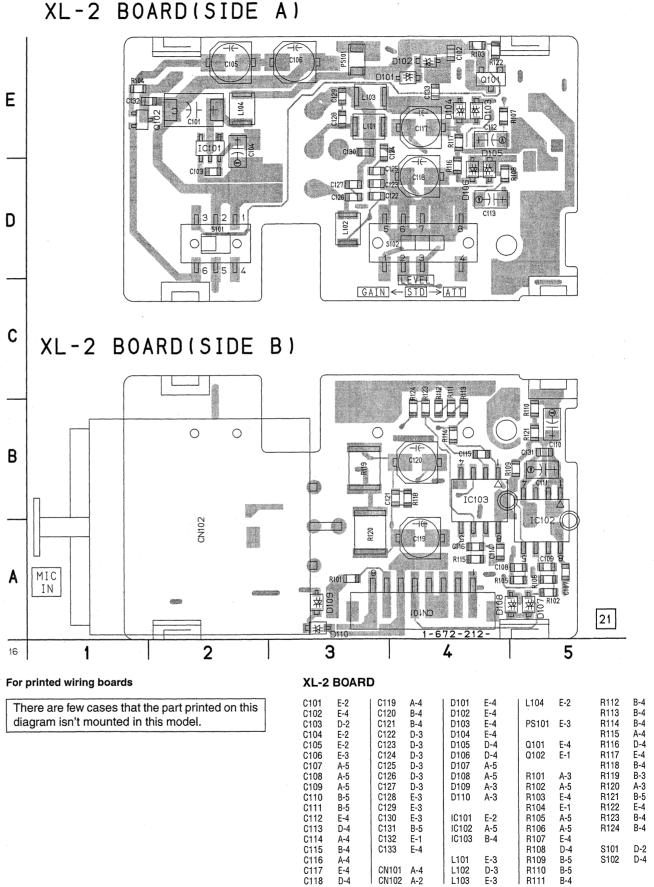


#### DSR-PD100A/PD100AP

#### [Page 4-131] PRINTED WIRING BOARD

XL-2 (MIC AMP) PRINTED WIRING BOARD

- Ref. No. XL-2 Board; 9,000 Series -



**Sony Corporation** Personal VIDEO Products Company

**— 10 —** 

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**—9—** 

V24133 # 1037/16

# SONY

## TECHNICAL MEMO

No.

NPV-995022

Category SL

Date

August 24, 1999

Sony Corporation, PV Co.

Subject

**Audio System Check Procedure When XLR Adapter Is Used (Addition to Service Manual)** 

**MODEL** 

## DSR-PD100, DSR-PD100P, DSR-PD100A, DSR-PD100AP

[Contents]

AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTER) is issued as attached as the service information.

#### AUDIO SYSTEM CHECK (WHEN SIGNAL IS INPUT USING XLR ADAPTOR)

#### [Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-11, and perform the checks.

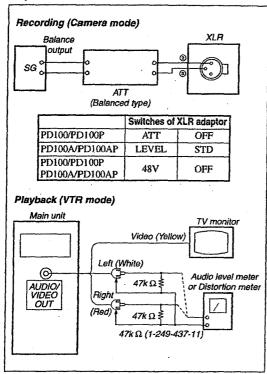


Fig. 5-3-11

#### 1. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	$-7.5 \pm 5.0  dBs$

#### Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- Record in the camera mode.
- Playback the recorded section.
- 4) Check that the 400 Hz signal level is the specified value.

#### 2. Overall Distortion Check

Mode	Camera recording and playback
Signaf	400 Hz, -60 dBs signal: XLR jack ② and ③ (balance input)
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.5 % (200 Hz to 6 kHz BPF ON)

#### Checking Method:

- Input the 400 Hz, -60 dBs signal in the XLR jack.
- Record in the camera mode.
- Playback the recorded section.
- Check that the distortion is the specified value.

#### 3. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the XLR jack.
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below -45 dBs (IHF-A filter ON, 20 kHz LPF ON)

#### Checking Method:

- Insert a shorting plug in the XLR jack, (Short pins-② and ③.)
   Record in the camera mode.
   Playback the recorded section.

- 4) Check that the noise level is the specified value.